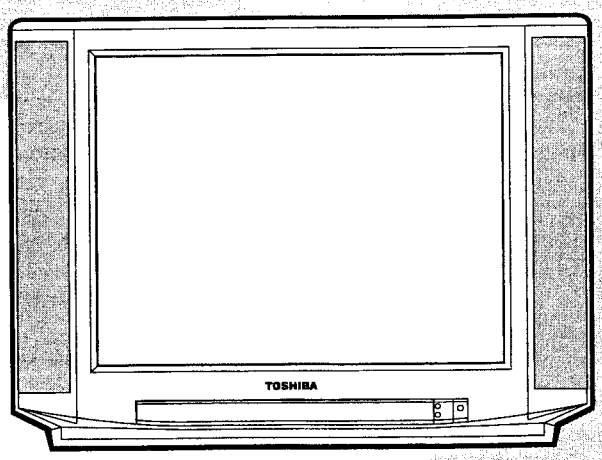
TOSHIBA

SERVICE MANUAL

COLOUR TELEVISION

C7SS Chassis

2878DG



May., 1997 (So)

X-RAY RADIATION PRECAUTION

1. Excessive high voltage can produce potentially hazardous X-RAY RADIATION. To avoid such hazards, the high voltage must not be above the specified limit. The nominal value of the high voltage of this receiver is 31.3 kV at zero beam current (minimum brightness) under a 220V AC power source. The high voltage must not, under any circumstances, exceed 32.0 kV.
   Each time a receiver requires servicing, the high voltage should be checked following the HIGH VOLTAGE CHECK procedure in this manual. It is recommended that the reading of the high voltage be recorded as a part of the service record. It is important to use an accurate and reliable high voltage meter.
2. The only source of X-RAY RADIATION in this TV receiver is the picture tube. For continued X-RAY RADIATION protection, the replacement tube must be exactly the same type tube as specified in the parts list.
3. Some parts in this receiver have special safety-related characteristics for X-RAY RADIATION protection. For continued safety, parts replacement should be undertaken only after referring to the PRODUCT SAFETY NOTICE below.

SAFETY PRECAUTION

WARNING : Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. Always discharge the picture tube anode to the CRT conductive coating before handling the picture tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled. Use shatter proof goggles and keep picture tube away from the unprotected body while handling.
3. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; nonmetallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-ray radiation or other hazards.

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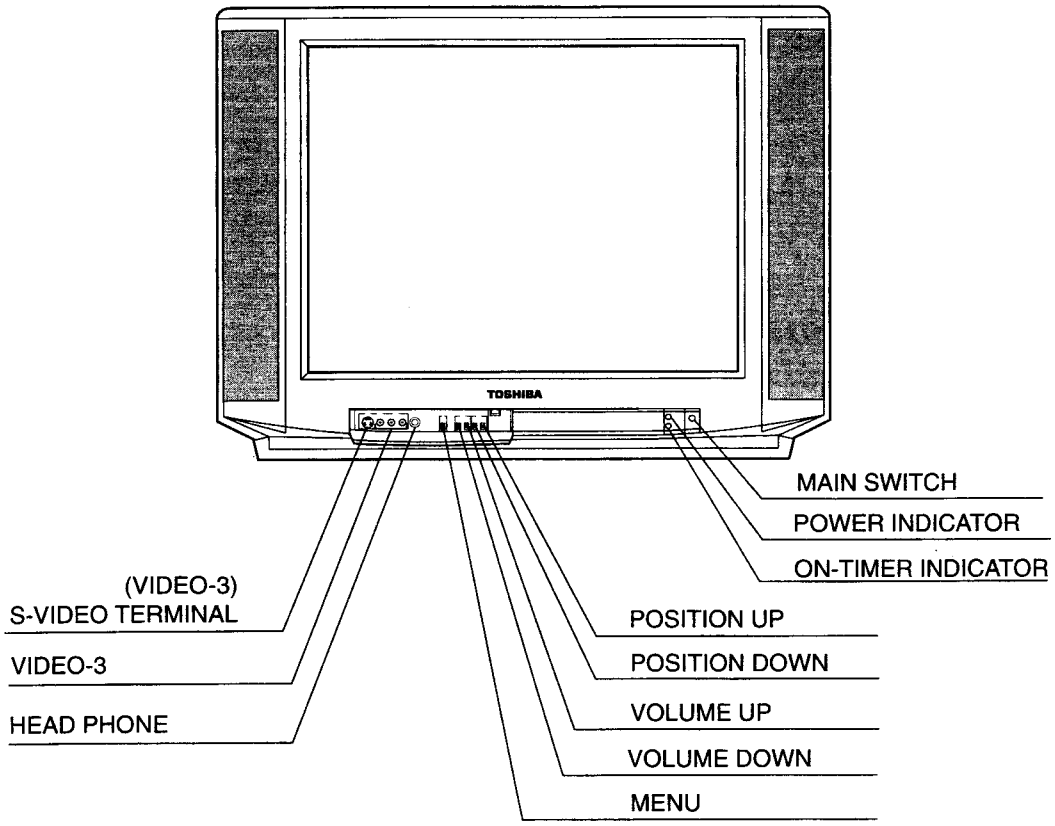
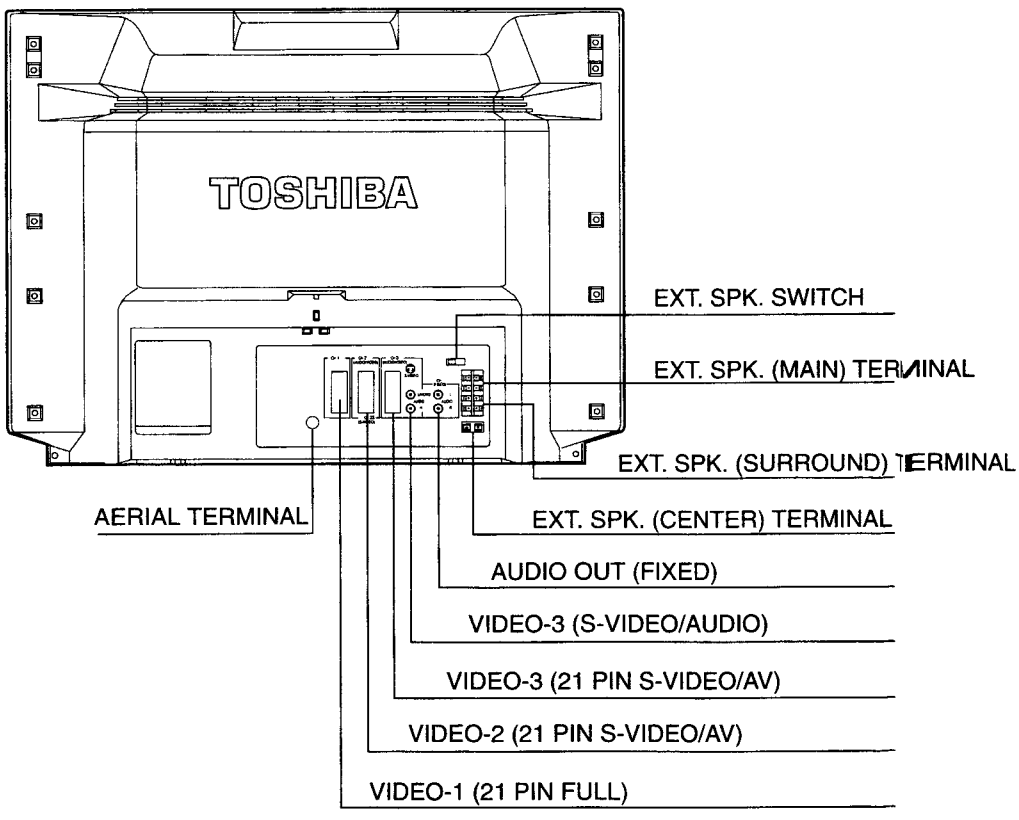
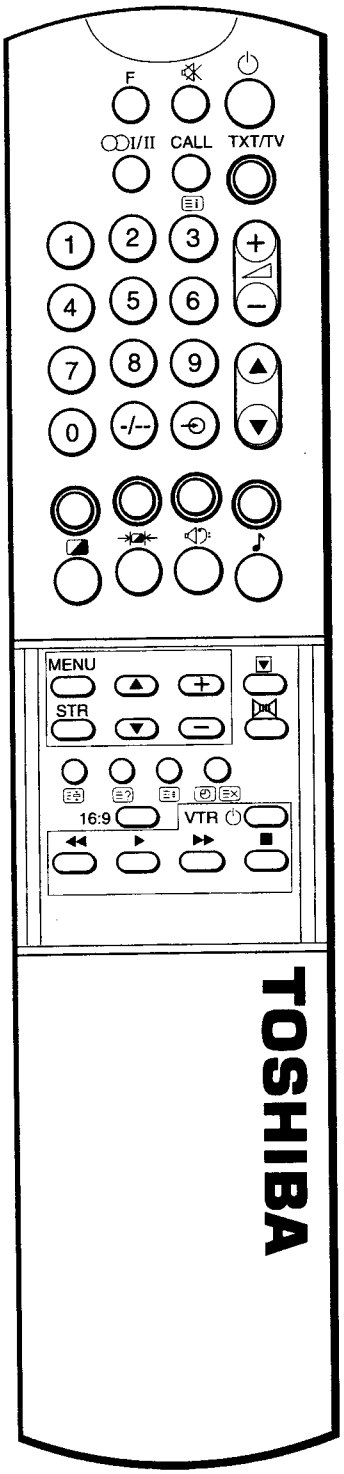
CIRCUIT DIAGRAM

LOCATION OF CONTROLS (TV SET)





LOCATION OF CONTROLS (REMOTE CONTROL)



KEY ASSIGNMENT

⏻ ..... ON/STAND-BY
🔇 ..... Sound mute
F ..... (Quick/advanced operation)
CALL (On-screen call)/📖 (index, initial) ..... TELETEXT MODE
◪ ..... PICTURE MENU
♪ ..... SOUND MENU
I/II ..... <TV MODE> ..... STEREO BILINGUAL
1~9, 0 ..... TEN KEY
-/ - -..... 1 or 2 place
⊖ ..... VIDEO INPUT (EXTERNAL INPUT SOURCE SW.)
◿ ..... VOLUME
\+ ..... LEVEL PLUS (VOLUME, MENU)
− ..... LEVEL MINUS (VOLUME, MENU)
▲ ..... UP (POSI., CH., TEXT PAGE)
▼ ..... DOWN (POSI., CH., TEXT PAGE)

TELE-TEXT
- TXT/TV ... TEXT, MIX, TV MODE SW.
- 📖 ..... HOLD
- 📖? ..... <TEXT MODE> ..... REVEAL / CONCEAL
- 📖 ..... <TEXT MODE> ..... F-T-B (FULL, TOP, BOTTOM)
- 🕒/📖 ..... TIME DISPLAY (TV MODE) TEXT CLEAR (TEXT MODE)
- FLOF COLOUR KEY (4 key used) Red/Green/Yellow/Blue

Super woofer ..... Super woofer
Selectable picture ..... Selectable picture
MENU ..... TUNING & OTHER MENU
STR ..... Store
▲/▼ ..... Menu select
◀/▶ ..... Level down/up
16:9 ..... PIC SIZE (Picture size select)

VTR control
⏻ Power on/standby
▶ Play
■ Stop
◀◀ Rewind
▶▶ Fast forward
DSP Surround

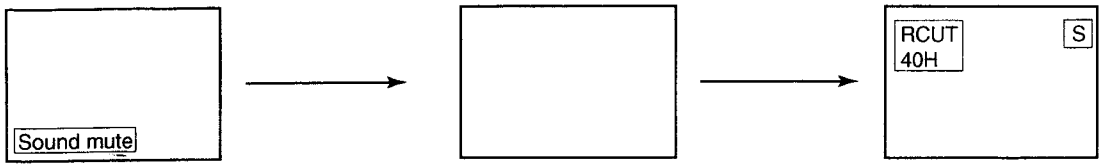
SERVICE MODE

1. ENTERING TO SERVICE MODE

1) Press 🔇 button once on Remote Control.

2) Press 🔇 button again to keep pressing.

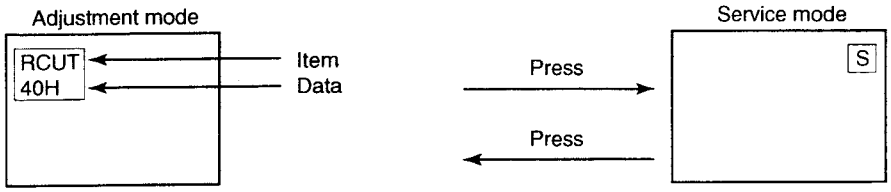
3) While pressing the 🔇 button, press MENU button on TV set.



(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on TV.



3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

A single horizontal line ON/OFF:	- / - - button (on Remote)
Test signal selection :	⊖ button (on Remote)
Selection of the adjustment items :	Channel ▲/▼ (on TV & Remote)
Change of the data value :	Volume ▲–/+ (on TV & Remote)
Adjustment menu mode ON/OFF:	MENU button (on TV)
Initialization of the memory (QA02) :	CALL + Channel button on TV (▲)
Reset the count of operating protect circuit to "00":	CALL + Channel button on TV (▼)
"RCUT" selection :	1 button
"GCUT" selection :	2 button
"BCUT" selection :	3 button
"CNTX" (or "SCNT") selection :	4 button
"COLC" selection :	5 button– – – – – Color thickness correction
"TNTC" selection :	6 button note: Displayed differently as shown below, de-
Test audio signal ON/OFF (1kHz) :	8 button pending on the setting of the receiving color
Self diagnostic display ON/OFF :	9 button system.
	COLP (PAL)
	COLC (NTSC)
	COLS (SECAM)

4. SELECTING THE ADJUSTING ITEMS

Every pressing of CHANNEL ▲ button changes the adjustment items in the following order. (▼ button for reverse order.)

Item	Adjustments	Reference data
RCUT	R CUTOFF (B/W)	40H
GCUT	G CUTOFF (B/W)	40H
BCUT	B CUTOFF (B/W)	40H
GDRV	G DRIVE	40H
BDRV	B DRIVE	40H
CNTX	SUB CONTRAST MAX (4:3 MODE)	7FH
BRTC	SUB BRIGHT CEN	80H
COLC	SUB COLOR CEN NTSC	00H
TNTC	SUB TINT CEN	48H
COLP	SUB COLOR CEN PAL	39H
COLS	SUB COLOR CEN SECAM	00H
SCOL	SUB COLOR	07H
SCNT	SUB CONTRAST	19H
VOLS	VOL SCART	00H
FVOL	FM VOL PRE SCALE	00H
NVOL	NICAM VOL PRE SCALE	00H
NICL	NICAM THRESHOLD LEVEL	00H
NICH	NICAM THRESHOLD LEVEL	00H
IDL	IGR THRESHOLD LEVEL	00H
IDH	IGR THRESHOLD LEVEL	00H
XOL	EXT PRE. VOLUME	11H
EMX	NICAM ON LEVEL	FCH
EMN	NICAM OFF LEVEL	64H
HPOS	50Hz H-POSITION	05H
VPOS	V-POSITION	0BH
HIT	HEIGHT	58H
VLIN	V-LINEARITY	18H
VSC	V-S CORRECTION	19H
VPS	V-SHIFT	0BH
VCP	V-COMPENSATION	09H
WID	PICTURE WIDTH	2BH
PARA	E-W PARABOLA	29H
CNR	E-W CORNER	07H
TRAP	TRAPEZIUM	27H
HCP	H-COMPENSATION	08H
VFC	V-F CORRECTION	0FH
BELL	SECAM BELL FILTER	80H
SRY	SECAM R-Y	08H
SBY	SECAM B-Y	08H

This item may require adjustments by models after initialization, when QA02 is replaced.

5. ADJUSTING THE DATA

1) Pressing of VOLUME ◿ +/– button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

6. EXIT FROM SERVICE MODE

1) Press POWER button to turn off the TV once.

INITIALIZATION OF MEMORY DATA OF QA02

After replacing QA02, the following initialization is required.

1) Enter the service mode, then select any register item.
2) Press and hold the CALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of QA02 has been completed.
3) Check the picture carefully. If necessary, adjust any adjustment item above.
   Perform "AUTO search Memory". on the owner's manual.

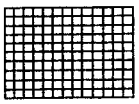
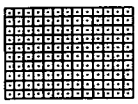
CAUTION: Never attempt to initialize the data unless QA02 has been replaced.

TEST SIGNAL SELECTION

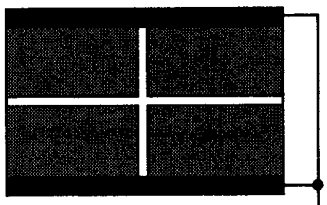
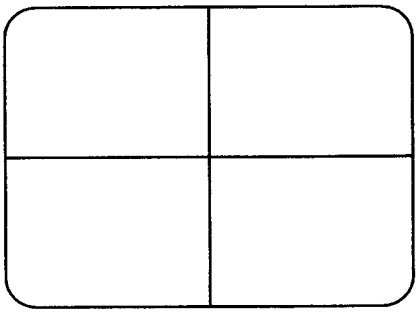
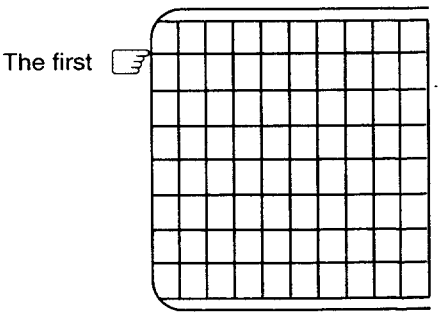
Every pressing of -⊖ button on the Remote Control changes the test patterns on screen as described below in SERVICE MODE.

Signal off ⟶ NTSC signals (14 patterns)
↑ ⟵ PAL signals (14 patterns) ⟵┘

- About inside signal: The inside signal is output at video input terminal from QA01, and is not output with the pin inserted into terminal. (Single color signal can be output.)

Signals	Picture	Using method
• Red single color • Green single color • Blue single color • Black single color • White single color		Purity and White uniformity of CRT Red single color. . . . Stopping G and B output of Q501 Green single color. . . . Stopping R and B output of Q501 Blue single color. . . . Stopping R and G output of Q501 Black single color. . . . Making black signal of approx. 1Vp-p in QA01 White single color. . . . Making white signal of approx. 1Vp-p in QA01
• W/B adjustment		White balance adjustment White part. . . . White balance adjustment/check in light area Black part. . . . White balance adjustment/check in dark area ※ Making approx. 1Vp-p signal in QA01.
• Black cross-bar • White cross-bar		Picture position (horizontal, vertical and slant) in CRT adjustment ※ Making approx. 1Vp-p signal in QA01.
• Black cross-hatch • White cross-hatch		Convergence and vertical amplitude adjustment ※ Making approx. 1Vp-p signal in QA01.
• Black cross-dot • White cross-dot		Convergence adjustment ※ Making approx. 1Vp-p signal in QA01.
• H signal (Left, right, white) • H signal (Left, right, black)		For checking (of purity drift) of white uniformity of CRT H signal (Left, right, white). . . . Check in light area H signal (Left, right, black). . . . Check in dark area The adjustment will be the best, if the time when unevenness of color in light area occurs, is a little longer than that in dark area. ※ Making approx. 1Vp-p signal in QA01

ELECTRICAL ADJUSTMENTS

ITEM	ADJUSTMENT PROCEDURE
FOCUS VR ADJ.	1. Enter the service mode, then select any register item. 2. Press the TV/VIDEO button on the Remote until the black cross-bar pattern appears on the screen. 3. Adjust the FOCUS control (on T461) for well defined scanning lines on the picture screen.
SUB-BRIGHTNESS (BRTC) Note: Constrict the picture height until the vertical retrace line appears adjusting the item HIT (HEIGHT).	1. Set CONTRAST to "00", and BRIGHTNESS to "50" by adjusting user controls. 2. Set the TV in service mode to get white cross-bar of inside pattern. 3. Select BRTC (brightness correction), and adjust the ◿ – /+ button to reduce the value so that white portion of inside pattern slightly light. 4. Adjust ◿ – /+ button to increase the data value of BRTC, and set it just before the difference between the belt of vertical retrace and the border of black portion of inside pattern is visible. After that, return vertical height and contrast.  Belt of vertical retrace
HORIZONTAL POSITION ADJUSTMENT (HPOS) VERTICAL POSITION ADJUSTMENT (VPOS)	1. Set the TV in service mode, and get black or white cross-bar signal with VIDEO button on remote hand unit. 2. Select either HPOS (Horizontal picture phase) or VPOS (Vertical picture phase) with CHANNEL ▲, ▼ buttons, and adjust horizontal or vertical picture position in the center of screen with VOLUME ◿ – /+ buttons. 
VERTICAL AMPLITUDE ADJUSTMENT (HIT)	1. Set the TV in service mode, and get black or white cross-hatch signal with VIDEO button on remote hand unit. 2. Select HIT (Vertical amplitude) with CHANNEL ▲, ▼ buttons, and adjust vertical amplitude with VOLUME ◿ – /+ buttons so that vertical amplitude lacks a little. 3. Adjust vertical amplitude with VOLUME ◿ – /+ buttons so that the first bar on cross-hatch signal touches edge of screen.  The first

ITEM	ADJUSTMENT PROCEDURE
WHITE BALANCE ADJUSTMENT ● CUTOFF ADJUSTMENT (RCUT) (GCUT) (BCUT) ● DRIVE ADJUSTMENT (GDRV) (BDRV)	1. Set Contrast to 40, and brightness to +20 by picture control. 2. Set the TV in service mode, and get the inside W/B adjusting signal with VIDEO button. 3. Select RCUT, GCUT and BCUT with CHANNEL ▲, ▼ buttons, to set individual values to 32, and to set GDRV and BDRV to 20 with VOLUME ◿ – /+ buttons. 4. Press -/- - button on the remote control and rotate Screen VR to get one slight horizontal line on screen. Note: Every pressing of -/- - button provides Horizontal line picture and Normal picture alternately. 5. Press -/- - button to release horizontal line picture, and select the two other colors which did not light in the above step with CHANNEL ▲, ▼ buttons. Then tap VOLUME ◿ – /+ buttons so that three colors slightly light in the same level. ※ To correct white balance in light area, select GDRV and BDRV with CHANNEL ▲, ▼ buttons to adjust. ※ To correct white balance in dark area, perform fine adjustment of RCUT, GCUT and BCUT. Light area check (to show white) Dark area check (to show black)

SELF DIAGNOSTIC FUNCTION

1) Press "9" button on Remote Control during display of adjustment menu in the service mode.
   The diagnosis will begin to check if interface among IC's are executed properly.
2) During diagnosis, the following displays are shown.

```
<SELF CHECK>
① 2390****
② POWER    : 00
③ BUS LINE : OK
④ BUS CONT : OK
⑤ BLOCK    : UV V1 V2
             QV01
```

① Part number of microcomputer (QA01)
② Operation number of protecting circuit ----"00" is normal.
When indication is other than "00", overcurrent apts to flow, and circuit parts may possibly be damaged.
③ BUS LINE CHECK ----"OK" is normal.
"SDA1-GND" means that SDA line is shorted to ground.
"SCL1-GND" means that SCL line is shorted to ground.
"SCL1-SDA1" means that SDA line is shorted to SCL line.
④ BUS CONT ----"OK" is normal.
When indication shows "Q ○○○ NG", the device with the number may possibly be damaged.

⑤ BLOCK
UV : TV reception mode
V1 : VIDEO 1 input mode (→①1)
V2 : VIDEO 2 input mode (→①2)

Indicated color of mode now selected : Green and Red
Indicated color of other modes : White

Green : Normal
Red : The microcomputer operates to provide judgement of no video signal. The red color is still indicated though the signal is input, failure may exist in input signal line including QV01.
QV01 : In case of indication green ---Normal
In case of indication red with input signal----
Failure may exist in output line including QV01.

NOTE: Component which controls character display on screen is ICF01 (TELETEXT IC.). If this display function fails to operate due to damage in ICF01, self diagnosis procedure is as follows.
(1) In case that power indicator is blinking with interval of 0.5 seconds; it means protecting circuit (Current limiter) is operating, and circuit components may possibly be damaged. Check related components.
(2) In case that power indicator is blinking with interval of 1 second; Protecting circuit does not operate, but a part of Bus line does not operate normally. Check Bus line.

C7SS Series (Reference Factory Adjustments)

Item. [SCNT]
Name. SUB-CONTRAST SETTING. DYNAMIC MODE Input signal. SUB-BRIGHT SIGNAL Measurement place. Q501 #55PIN (TP501) Adjustment method. Adjust the amplitude from pedestal-level to a white peak. Making standard 2.3±0.2Vop
Item. [BRTC]
Name. SUB-BRIGHT CENTER SETTING. DYNAMIC MODE Input signal. SUB-BRIGHT SIGNAL Measurement place. On picture Adjustment method. It is black step of the (*sub-bright*) signal and adjust the number. Making standard 4±1.5 bar
Item. [COLP]
Name. SUB-COLOR CENTER (PAL) SETTING. DYNAMIC MODE Input signal. SUB-BRIGHT SIGNAL (PAL) Measurement place. Q501 #55PIN (TP501) Adjustment method. Adjust the amplitude of B-Y. Making standard 1.40±0.2 Vop
Item. [RCUT], [GCUT], [BCUT], [GDRV], [BDRV], [SCREEN VR]
Name. CUT OFF/DRIVE ADJUST SETTING. [RCUT], [GCUT], [BCUT], [GDRV], [BDRV] each data set = 40h Set to White line mode0 Input signal. White signal Measurement place. On picture. Adjustment method. Raise screen VR gradually and stop in the place where the line of either of R or G or B shines slightly. Decide the position of screen VR there. Raise the color data other than the line which shines by first gradually shine point. Stop in the place whice shies in most white. Make clear white line mode. Adjust it repeatedly for both the shade part and discernment to become a correct numerical value by using proofread CA100. Making standard 103cd/m² 8750K –0.002uv 17cd/m² 8750K –0.002uv

Item. [BELL]
Name. BELL FILTER SETTING. NONE Input signal. SECAM COLOR BAR. Measurement place. QQ01 #21 (TPM01) Adjustment method. Adjust with the synchroscope as the display crimp is flat. Making standard 100±10%
Item. [SRY]
Name. SECAM R-Y BLACK LEVEL. SETTING. DYNAMIC MODE Input signal. SECAM COLOR BAR. Measurement place. Q501 #55 (TP501) Adjustment method. Adjust [SRY] the level of the monochrome signal part must be a match to the level of horizontal blanking signal. Making standard 0±40mV
Item. [SBY]
Name. SECAM B-Y BLACK LEVEL. SETTING. DYNAMIC MODE Input signal. SECAM COLOR BAR. Measurement place. Q501 #55 (TP01) Adjustment method. Adjust [SBY] the level of the monochrome signal part must be a mutch to the level of horizontal blanking signal. Making standard 0±40mV
Item. [COLS]
Name. SUB-COLOR CENTER (SECAM). SETTING. DYNAMIC MODE Input signal. SECAM COLOR BAR. Measurement place. Q501 #55 (TP01) Adjustment method. Adjust the amplitude of R-Y. (Mute the picture in adjustment) Making standard 1.90±0.2Vop (Pedestal to peak)
Item. [VERT POSITION]
SETTING. CONTRAST=MAX. BRIGHT=CENTER COLOR=CENTER Input signal. WG Philips Pattern (Do not use French SECAM). Measurement place. On Screen Adjustment method. a:Adjust the height so as to appear the flag of both upper and lower side. b:Adjust the picture to the center of the screen by [VPOS].

Item. [V.HEIGHT]
SETTING. CONTRAST=MAX. BRIGHT=CENTER COLOR=CENTER Input signal. WG Philips Pattern (Do not use French SECAM). Measurement place. On Screen Adjustment method. Adjust the Picture so as to just disappear the flag of both upper and lower side with [HIT].
Item. [HORIZONTAL POSITION]
SETTING. CONTRAST=MAX. BRIGHT=CENTER COLOR=CENTER Input signal. WG Philips Pattern (Do not use French SECAM). Measurement place. On Screen Adjustment method. Adjust the Picture of Philips pattern to the center of the screen with [HPOS]. (Minimize D-C by the CRT adjustment magnetic field)
Item. [HORIZONTAL WIDTH] [SIDE PINCTION] [TRAPEZOID DISTORTION]
SETTING. CONTRAST=MAX. BRIGHT=CENTER COLOR=CENTER After V-HIGHT/V-POSITION adjustment. Input signal. WG Philips Pattern (Do not use French SECAM). Measurement place. On Screen Adjustment method. 1. Width: a: French Model; Adjust the width to just disappear the first line marker inside the flag of left and right side with [WID]. b: Other Model; Adjust the width to just disappear the flag of both left and right side with [WID]. 2. E/W : Adjust the vertical bar of both left and right end to the straightline it with [DPC]. 3. Trapezium : Compensate the trapeqoid distortion with [TRAP]. 4. Width : Adjust the width again. (Turn the direction of CPT to the east or the west when adjusting. adjust the amount offsetting if it is not possible to do.)
Item. [Vertical, synchronous VR adjustment] (R4350)]
SETTING. UNIT ADJUSTMENT Adjustment method. Supply +12V to the terminal HVCC. Adjust the frequency of the terminal Q420#24 with a frequency counter to 80.0(+2.0)(−1.0)Hz. Note: Connect power supply GND with GND of all connectors when you supply the power supply.
Item. [Horizontal, synchronous VR adjustment] (R4450)
SETTING. UNIT ADJUSTMENT Adjustment method. Supply +12V to the terminal HVCC. Adjust the frequency of the terminal Q420#24 with a frequency counter to 31.36±0.15kHz. Note: Connect power supply GND with GND of all connectors when you supply the power supply.

CIRCUIT CHECKS

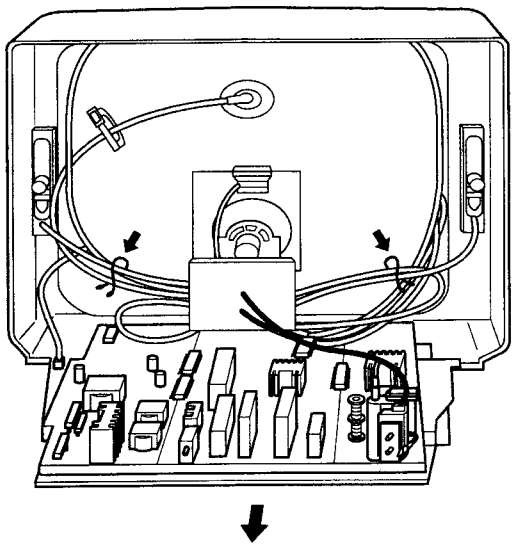
HIGH VOLTAGE CHECK

CAUTION: There is no HIGH VOLTAGE ADJUSTMENT on this chassis. Checking should be done following the steps below.

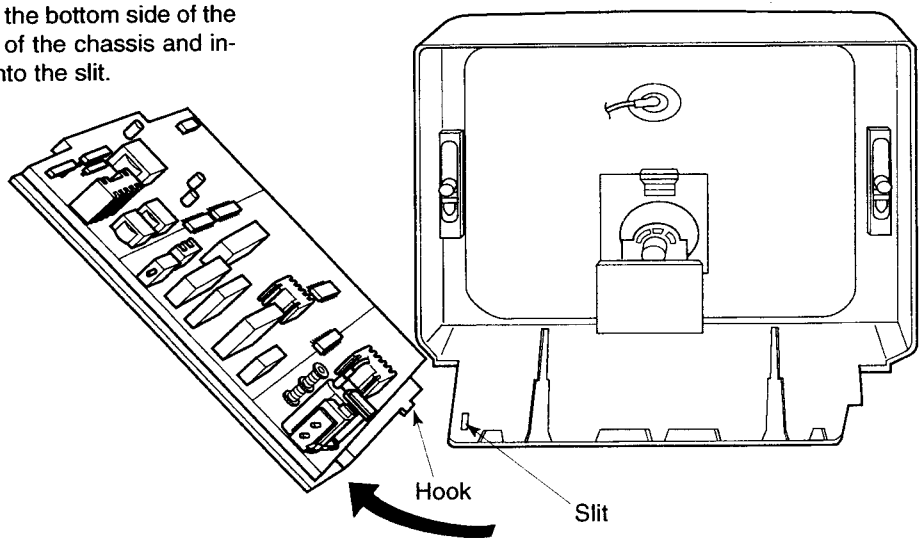
1. Connect an accurate high voltage meter to the second anode of the picture tube.
2. Turn on the receiver. Set the BRIGHTNESS and CONTRAST controls to minimum (zero beam current).
3. High voltage must be measured below 32.0 kV.
4. Vary the BRIGHTNESS control to both extremes to be sure the high voltage does not exceed the limit under any conditions.

SERVICE POSITION

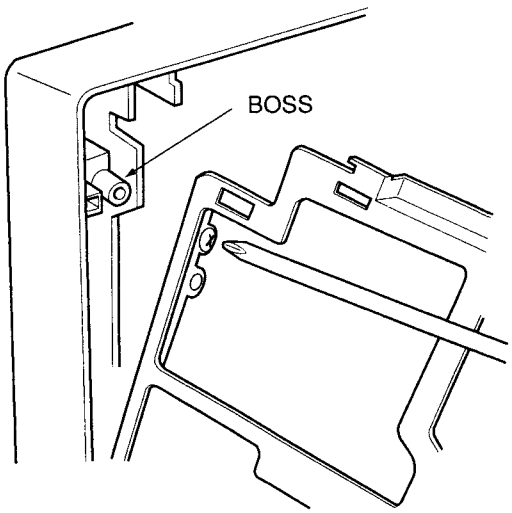
1. Disconnect the lead wires for the speaker fixed to the degausser coil with three omega clips. And lifting up slightly, pull out the chassis from the front mask.



2. There is a slit at the left front of the bottom side of the front mask. Lift up the left side of the chassis and insert the hook at the right side into the slit.

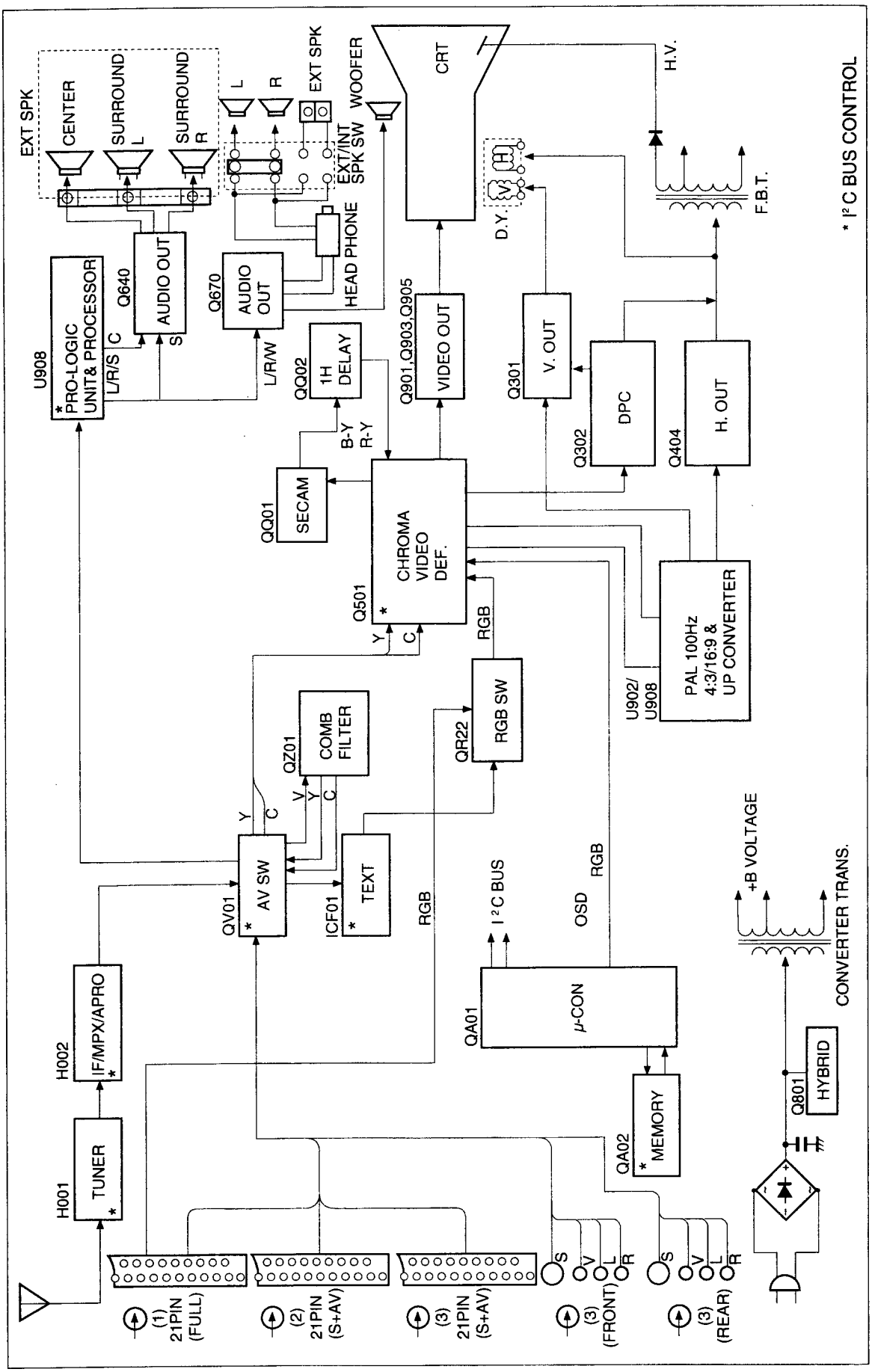


3. To retain the chassis, use the upper left boss (highest boss) which is marked with No. 29. And fix it with screws for back cover fixing.
   Upper hole of the chassis frame.

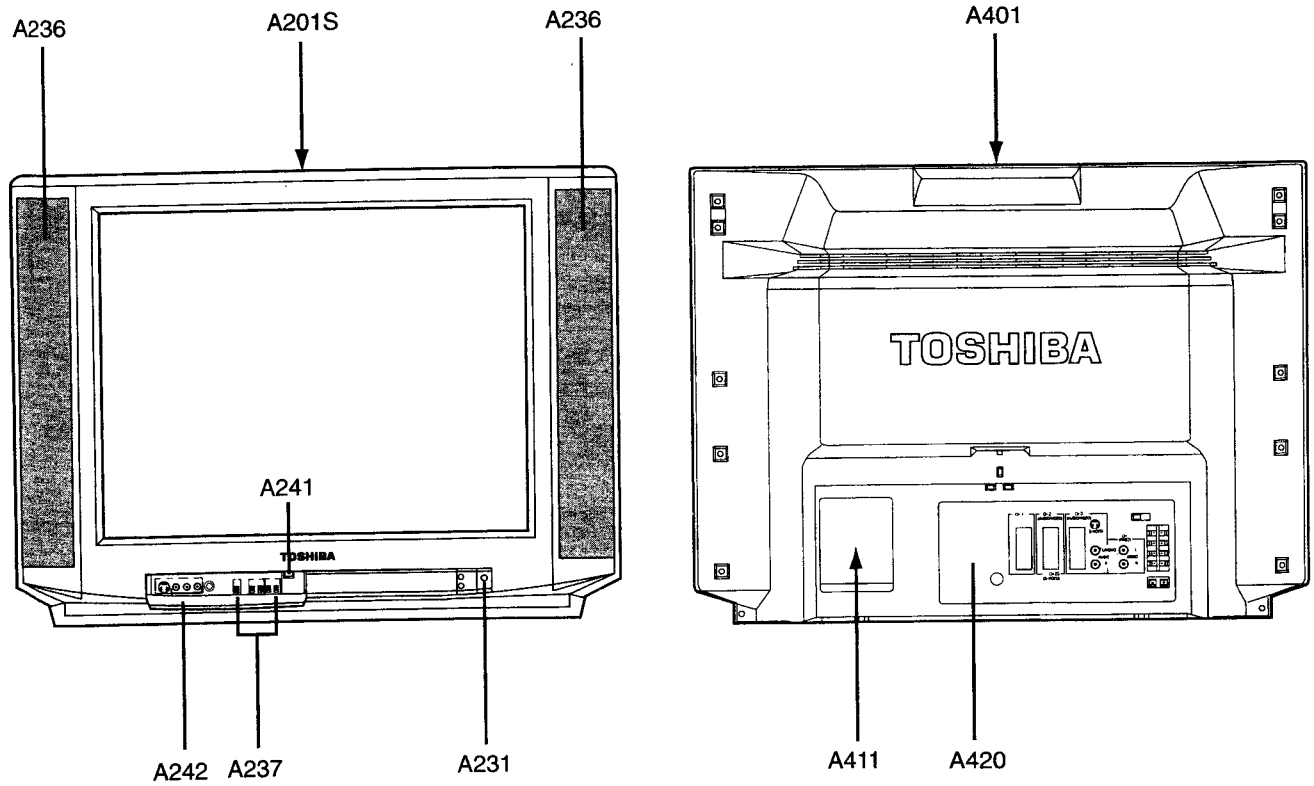


4. After repair works, restore the unit by reversing the above steps.

CIRCUIT BLOCK DIAGRAM



CABINET REPLACEMENT PARTS LIST



Location No.	Part No.	Description
A201S	23510172	Front Cover
A231	23443960	Button, POWER
A236	23519223	Speaker Grille
A237	23443966	Button, Control
A241	70368125	Push Catch for Door
A242	23427129	Door, Proper
⚠A401	23426393	Back Cover
A411	23560479	Label, Model No.
A420	23460882	Trim, Back Terminal

CHASSIS REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 2 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 2. Do not degrade the safety of the receiver through improper servicing.

NOTICE:
- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with * mark is no longer available after the end of the production.*

ABBREVIATIONS:

Capacitors	CD	: Ceramic Disk	PF	: Plastic Film	EL	: Electrolytic
Resistors	CF	: Carbon Film	CC	: Carbon Composition	MF	: Metal Film
	OMF	: Oxide Metal Film	VR	: Variable Resistor	FR	: Fusible Resistor

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Part No.	Description
CAPACITORS		
C101	24797229	EL, 2.2μF, ±20%, 50V
C102	24763221	EL, 220μF, ±20%, 16V
C103	24232103	CD, 0.01μF, +80%, -20%
C104	24794470	EL, 47μF, ±20%, 16V
C105	24212102	CD, 1000pF, ±10%
C106	24797100	EL, 10μF, ±20%, 50V
C107	24763221	EL, 220μF, ±20%, 16V
C108	24763101	EL, 100μF, ±20%, 16V
C109	24232103	CD, 0.01μF, +80%, -20%
C115	24232103	CD, 0.01μF, +80%, -20%
C116	24763221	EL, 220μF, ±20%, 16V
C183	24797479	EL, 4.7μF, ±20%, 50V
C201	24206100	EL, 10μF, 50V
C203	24538104	PF, 0.1μF
C204	24206010	EL, 1μF, 50V
C205	24206229	EL, 2.2μF, 50V
C206	24797220	EL, 22μF, ±20%, 50V
C207	24436100	CD, 10pF, ±0.25pF
C208	24436100	CD, 10pF, ±0.25pF
C209	24436100	CD, 10pF, ±0.25pF
C211	24353330	CD, 33pF
C212	24794100	EL, 10μF, ±20%, 16V
C214	24591334	PF, 0.33μF
C215	24474101	CD, 100pF, ±10%
C216	24436101	CD, 100pF
C218	24436390	CD, 39pF
C303	24214471	CD, 470pF, ±10%, 500V
C304	24693473	PF, 0.047μF, 100V
C305	24617912	EL, 2.2μF, ±10%, 50V
C306	24073059	EL, 3300μF, ±20%, 25V
C307	24793101	EL, 100μF, ±20%, 10V
C308	24668221	EL, 220μF, ±20%, 35V
C309	24668101	EL, 100μF, ±20%, 35V
C310	24796222	EL, 2200μF, ±20%, 35V
C311	24538473	PF, 0.047μF
C312	24591273	PF, 0.027μF
C313	24082058	PF, 0.27μF, 100V
C315(U902A)	24797229	EL, 2.2μF, ±20%, 50V
C315(U903B)	24212102	CD, 1000pF, ±10%
C316	24538393	PF, 0.039μF

Location No.	Part No.	Description
C318	24666101	EL, 100μF, ±20%, 16V
C319	24212102	CD, 1000pF, ±10%
C321	24591203	PF, 0.02μF
C323	24538224	PF, 0.22μF
C324	24538683	PF, 0.068μF
C325	24617912	EL, 2.2μF, ±10%, 50V
C327	24617787	EL, 470μF, ±20%, 16V
C328	24232103	CD, 0.01μF, +80%, -20%
C341	24797478	EL, 0.47μF, ±20%, 50V
C366	24693473	PF, 0.047μF, 100V
C370	24794101	EL, 100μF, ±20%, 16V
C371	24794100	EL, 10μF, ±20%, 16V
C401	24538104	PF, 0.1μF
C403	24591333	PF, 0.033μF
C404	24797229	EL, 2.2μF, ±20%, 50V
C410	24092341	CD, 470pF, ±10%, 2kV
C413	24214332	CD, 3300pF, ±10%, 500V
C416	24668101	EL, 100μF, ±20%, 35V
C417	24214391	CD, 390pF, ±10%, 500V
C419	24212102	CD, 1000pF, ±10%
C420	24763101	EL, 100μF, ±20%, 16V
C421	24539104	PF, 0.1μF
C423	24829473	PF, 0.047μF, 400V
C430	24232103	CD, 0.01μF, +80%, -20%
C431(U902A)	24794102	EL, 1000μF, ±20%, 16V
C431(U903A)	24212103	CD, 0.01μF, ±10%
C439	24082830	PF, 3000pF, ±3%, 1800V
C440	24082830	PF, 3000pF, ±3%, 1800V
C442	24082642	PF, 0.16μF, 400V
C443	24082644	PF, 0.2μF, 400V
C444	24082827	PF, 2200pF, ±3%, 1800V
C445	24828473	PF, 0.047μF, 200V
C446	24679330	EL, 33μF, ±20%, 250V
C448	24640908	EL, 33μF, ±20%, 160V
C460	24796331	EL, 330μF, ±20%, 35V
C461	24082827	PF, 2200pF, ±3%, 1800V
C462	24796222	EL, 2200μF, ±20%, 35V
C463	24212392	CD, 3900pF, ±10%
C464	24640900	EL, 4.7μF, ±20%, 100V
C465	24591683	PF, 0.068μF
C466	24095884	PF, 0.013μF, 630V

Location No.	Part No.	Description
C469	24092337	CD, 220pF, ±10%, 2kV
C470	24794220	EL, 22μF, ±20%, 16V
C472	24538474	PF, 0.47μF
C473	24669010	EL, 1μF, ±20%, 50V
C475	24095887	PF, 0.01μF, ±3%, 630V
C477	24590563	PF, 0.056μF
C478	24590563	PF, 0.056μF
C479	24214471	CD, 470pF, ±10%, 500V
C481	24538104	PF, 0.1μF
C484	24591152	PF, 1500pF
C491	24082749	PF, 1.5μF, 250V
C492	24082645	PF, 0.22μF, 400V
C494	24082644	PF, 0.2μF, 400V
C495	24092343	CD, 680pF, ±10%, 2kV
C496	24092343	CD, 680pF, ±10%, 2kV
C501	24212101	CD, 100pF, ±10%
C502	24232103	CD, 0.01μF, +80%, −20%
C503	24763101	EL, 100μF, ±20%, 16V
C504	24591222	PF, 2200pF
C505	24353120	CD, 12pF
C507	24353120	CD, 12pF
C508	24206100	EL, 10μF, 50V
C509	24763101	EL, 100μF, ±20%, 16V
C510	24763101	EL, 100μF, ±20%, 16V
C511	24232103	CD, 0.01μF, +80%, −20%
C512	24206228	EL, 0.22μF, 50V
C513	24092398	CD, 0.1μF, +80%,−20%
C514	24538104	PF, 0.1μF
C515	24538104	PF, 0.1μF
C516	24212102	CD, 1000pF, ±10%
C517	24353010	CD, 1pF, ±0.25pF
C519	24353010	CD, 1pF, ±0.25pF
C520	24474102	CD, 1000pF, ±10%
C521	24212102	CD, 1000pF, ±10%
C522	24473470	CD, 47pF
C523	24473470	CD, 47pF
C524	24436561	CD, 560pF
C525	24353181	CD, 180pF
C526	24474101	CD, 100pF, ±10%
C613	24794470	EL, 47μF, ±20%, 16V
C641	24206010	EL, 1μF, 50V
C644	24206010	EL, 1μF, 50V
C645	24795470	EL, 47μF, ±20%, 25V
C646	24795470	EL, 47μF, ±20%, 25V
C647	24591102	PF, 1000pF
C648	24590682	PF, 6800pF
C649	24206229	EL, 2.2μF, 50V
C650	24796102	EL, 1000μF, ±20%, 35V
C651	24668471	EL, 470μF, ±20%, 35V
C652	24668471	EL, 470μF, ±20%, 35V
C653	24795470	EL, 47μF, ±20%, 25V
C654	24591124	PF, 0.12μF
C655	24591124	PF, 0.12μF
C656	24232103	CD, 0.01μF, +80%, −20%
C660	24206229	EL, 2.2μF, 50V
C661	24538104	PF, 0.1μF
C662	24203100	EL, 10μF, ±20%, 16V
C663	24797229	EL, 2.2μF, ±20%, 50V
C664	24203100	EL, 10μF, ±20%, 16V
C665	24206229	EL, 2.2μF, 50V
C666	24206229	EL, 2.2μF, 50V
C667	24212102	CD, 1000pF, ±10%
C668	24212102	CD, 1000pF, ±10%
C669	24668330	EL, 33μF, ±20%, 35V

Location No.	Part No.	Description
C670	24668330	EL, 33μF, ±20%, 35V
C671(U904)	24232103	CD, 0.01μF, +80%, −20%
C671(U902A)	24797010	EL, 1μF, ±20%, 50V
C672	24232103	CD, 0.01μF, +80%, −20%
C673(U902A)	24797010	EL, 1μF, ±20%, 50V
C673(U904)	24474102	CD, 1000pF, ±10%
C674(U902A)	24797010	EL, 1μF, ±20%, 50V
C674(U904)	24474102	CD, 1000pF, ±10%
C675(U902A)	24795470	EL, 47μF, ±20%, 25V
C675(U904)	24474102	CD, 1000pF, ±10%
C676(U904)	24474102	CD, 1000pF, ±10%
C676(U902A)	24797479	EL, 4.7μF, ±20%, 50V
C677(U904)	24232103	CD, 0.01μF, +80%, −20%
C677(U902A)	24591102	PF, 1000pF
C678(U904)	24474102	CD, 1000pF, ±10%
C678(U902A)	24591102	PF, 1000pF
C679(U902A)	24538104	PF, 0.1μF
C679(U904)	24474102	CD, 1000pF, ±10%
C680(U902A)	24668102	EL, 1000μF, ±20%, 35V
C680(U904)	24232103	CD, 0.01μF, +80%, −20%
C681(U904)	24474102	CD, 1000pF, ±10%
C681(U902A)	24668471	EL, 470μF, ±20%, 35V
C682(U902A)	24668471	EL, 470μF, ±20%, 35V
C682(U904)	24474102	CD, 1000pF, ±10%
C683	24668102	EL, 1000μF, ±20%, 35V
C684	24591124	PF, 0.12μF
C685	24591124	PF, 0.12μF
C686	24591124	PF, 0.12μF
C687	24232103	CD, 0.01μF, +80%, −20%
C688	24203220	EL, 22μF, ±20%, 16V
C689	24797010	EL, 1μF, ±20%, 50V
C704	24232103	CD, 0.01μF, +80%, −20%
C705	24797229	EL, 2.2μF, ±20%, 50V
C707	24794470	EL, 47μF, ±20%, 16V
C712	24666470	EL, 47μF, ±20%, 16V
C713	24790100	EL, 10μF, ±20%, 160V
C714	24436101	CD, 100pF
C715	24214472	CD, 4700pF, ±10%, 500V
C716	24436101	CD, 100pF
C717	24214472	CD, 4700pF, ±10%, 500V
C718	24794470	EL, 47μF, ±20%, 16V
C719	24435151	CD, 150pF, 500V
C720	24790100	EL, 10μF, ±20%, 160V
C721	24794470	EL, 47μF, ±20%, 16V
⚠C801	24082927	PF, 0.22μF, ±20%, AC275V
⚠C802	24082927	PF, 0.22μF, ±20%, AC275V
⚠C805	24092281	CD, 4700pF, ±20%, AC250V
⚠C806	24092281	CD, 4700pF, ±20%, AC250V
C807	24567474	PF, 0.47μF
C808	24667331	EL, 330μF, ±20%, 25V
C809	24214471	CD, 470pF, ±10%, 500V
C810	24086873	EL, 330μF, ±20%, 400V
⚠C813	24092557	CD, 2200pF, ±20%, AC250V
⚠C814	24092557	CD, 2200pF, ±20%, AC250V
C816	24669221	EL, 220μF, ±20%, 50V
C817	24092341	CD, 470pF, ±10%, 2kV
C818	24095931	PF, 2200pF, 1250V
C819	24676220	EL, 22μF, ±20%, 100V
C820	24092343	CD, 680pF, ±10%, 2kV
C821	24214471	CD, 470pF, ±10%, 500V
C829	24590182	PF, 1800pF
C831	24794470	EL, 47μF, ±20%, 16V
C832	24794470	EL, 47μF, ±20%, 16V
C833	24669100	EL, 10μF, ±20%, 50V

Location No.	Part No.	Description
C834	24797100	EL, 10μF, ±20%, 50V
C835	24794470	EL, 47μF, ±20%, 16V
C841	24669100	EL, 10μF, ±20%, 50V
C842	24669100	EL, 10μF, ±20%, 50V
C843	24590104	PF, 0.1μF
C846	24590104	PF, 0.1μF
C884	24086916	EL, 330μF, ±20%, 160V
C885	24214471	CD, 470pF, ±10%, 500V
C887	24214471	CD, 470pF, ±10%, 500V
C889	24668102	EL, 1000μF, ±20%, 35V
C892	24667222	EL, 2200μF, ±20%, 25V
C893	24092337	CD, 220pF, ±10%, 2kV
C894	24668102	EL, 1000μF, ±20%, 35V
C895	24669470	EL, 47μF, ±20%, 50V
C896	24214471	CD, 470pF, ±10%, 500V
C897	24666332	EL, 3300μF, ±20%, 16V
C898	24590153	PF, 0.015μF
C899	24214471	CD, 470pF, ±10%, 500V
C902	24092353	CD, 4700pF, ±10%, 2kV
C904	24436471	CD, 470pF
C905	24436471	CD, 470pF
C907	24436471	CD, 470pF
C909	24679220	EL, 22μF, ±20%, 250V
C910	24797478	EL, 0.47μF, ±20%, 50V
C911	24203100	EL, 10μF, ±20%, 16V
C912	24794102	EL, 1000μF, ±20%, 16V
C913	24763102	EL, 1000μF, ±20%, 16V
C914	24212103	CD, 0.01μF, ±10%
C915	24092398	CD, 0.1μF, +80%,–20%
C920	24591104	PF, 0.1μF
C921	24591104	PF, 0.1μF
C930	24214101	CD, 100pF, ±10%, 500V
C931	24214101	CD, 100pF, ±10%, 500V
C4031	24591562	PF, 5600pF
C4041	24797229	EL, 2.2μF, ±20%, 50V
C4301	24797010	EL, 1μF, ±20%, 50V
C4303	24591433	PF, 0.043μF
C4304	24591153	PF, 0.015μF
C4305	24794101	EL, 100μF, ±20%, 16V
C4306	24232103	CD, 0.01μF, +80%, –20%
C4307	24232103	CD, 0.01μF, +80%, –20%
C4311	24794471	EL, 470μF, ±20%, 16V
C4401	24232103	CD, 0.01μF, +80%, –20%
C4402	24232103	CD, 0.01μF, +80%, –20%
C4403	24501561	PF, 560pF
C4404	24501132	PF, 1300pF
C4405	24797479	EL, 4.7μF, ±20%, 50V
C4406	24232103	CD, 0.01μF, +80%, –20%
C4408	24766229	EL, 2.2μF, ±20%, 50V
C4412	24501132	PF, 1300pF
C4413	24501102	PF, 1000pF
C4414	24232103	CD, 0.01μF, +80%, –20%
C4415	24567474	PF, 0.47μF
C4416	24501161	PF, 160pF
C4417	24590332	PF, 3300pF
C4421	24353330	CD, 33pF
CA13	24212101	CD, 100pF, ±10%
CA30	24212101	CD, 100pF, ±10%
CA33	24232103	CD, 0.01μF, +80%, –20%
CA37	24212101	CD, 100pF, ±10%
CA38	24212101	CD, 100pF, ±10%
CA42	24794100	EL, 10μF, ±20%, 16V
CA43	24232103	CD, 0.01μF, +80%, –20%
CA44	24232103	CD, 0.01μF, +80%, –20%

Location No.	Part No.	Description
CA68	24794100	EL, 10μF, ±20%, 16V
CA69	24232103	CD, 0.01μF, +80%, –20%
CB01	24794470	EL, 47μF, ±20%, 16V
CC10	24474101	CD, 100pF, ±10%
CC20	24212102	CD, 1000pF, ±10%
CC21	24436470	CD, 47pF
CC22	24436470	CD, 47pF
CD01	24092293	Chip, 0.1μF, +80%,–20%, 25V
CD02	24092293	Chip, 0.1μF, +80%,–20%, 25V
CD03	24092293	Chip, 0.1μF, +80%,–20%, 25V
CD04	24092293	Chip, 0.1μF, +80%,–20%, 25V
CD05	24781330	Chip, 33pF, SL
CD06	24781330	Chip, 33pF, SL
CD20	24092293	Chip, 0.1μF, +80%,–20%, 25V
CD21	24092293	Chip, 0.1μF, +80%,–20%, 25V
CD22	24092293	Chip, 0.1μF, +80%,–20%, 25V
CD23	24793221	EL, 220μF, ±20%, 10V
CD24	24092293	Chip, 0.1μF, +80%,–20%, 25V
CD25	24793221	EL, 220μF, ±20%, 10V
CD30	24794100	EL, 10μF, ±20%, 16V
CD31	24794220	EL, 22μF, ±20%, 16V
CD32	24797010	EL, 1μF, ±20%, 50V
CD33	24590823	PF, 0.082μF
CD34	24590104	PF, 0.1μF
CD35	24591124	PF, 0.12μF
CD36	24781102	Chip, 1000pF, SL
CD37	24794100	EL, 10μF, ±20%, 16V
CD38	24797010	EL, 1μF, ±20%, 50V
CD39	24797010	EL, 1μF, ±20%, 50V
CD40	24797010	EL, 1μF, ±20%, 50V
CD41	24814103	Chip, 0.01μF, +80%, –20%
CD42	24794101	EL, 100μF, ±20%, 16V
CF03	24567104	PF, 0.1μF
CF04	24766101	PF, 0.1μF
CF05	24766101	PF, 0.1μF
CF06	24353220	CD, 22pF
CF07	24353220	CD, 22pF
CF08	24567104	PF, 0.1μF
CF09	24567104	PF, 0.1μF
CF10	24206100	EL, 10μF, 50V
CF11	24567104	PF, 0.1μF
CF12	24232103	CD, 0.01μF, +80%, –20%
CF14	24232103	CD, 0.01μF, +80%, –20%
CQ01	24436102	CD, 1000pF
CQ02	24353820	CD, 82pF
CQ03	24212102	CD, 1000pF, ±10%
CQ04	24794100	EL, 10μF, ±20%, 16V
CQ05	24590563	PF, 0.056μF
CQ07	24590203	PF, 0.02μF
CQ08	24590683	PF, 0.068μF
CQ09	24797229	EL, 2.2μF, ±20%, 50V
CQ10	24590223	PF, 0.022μF
CQ11	24797229	EL, 2.2μF, ±20%, 50V
CQ12	24436910	CD, 91pF
CQ13	24797010	EL, 1μF, ±20%, 50V
CQ14	24797010	EL, 1μF, ±20%, 50V
CQ15	24794101	EL, 100μF, ±20%, 16V
CQ16	24232103	CD, 0.01μF, +80%, –20%
CQ17	24353150	CD, 15pF
CQ18	24436910	CD, 91pF
CQ19	24590103	PF, 0.01μF
CQ20	24590104	PF, 0.1μF
CQ21	24794470	EL, 47μF, ±20%, 16V
CQ22	24232103	CD, 0.01μF, +80%, –20%

Location No.	Part No.	Description
CQ23	24590104	PF, 0.1μF
CQ24	24590104	PF, 0.1μF
CQ25	24797100	EL, 10μF, ±20%, 50V
CQ26	24590104	PF, 0.1μF
CQ27	24590104	PF, 0.1μF
CQ28	24797478	EL, 0.47μF, ±20%, 50V
CQ29	24794101	EL, 100μF, ±20%, 16V
CQ30	24232103	CD, 0.01μF, +80%, −20%
CQ31	24797478	EL, 0.47μF, ±20%, 50V
CQ32	24590103	PF, 0.01μF
CQ33	24590104	PF, 0.1μF
CQ34	24590104	PF, 0.1μF
CQ35	24206478	EL, 0.47μF, 50V
CQ36	24206478	EL, 0.47μF, 50V
CQ37	24797010	EL, 1μF, ±20%, 50V
CQ38	24797010	EL, 1μF, ±20%, 50V
CQ39	24797010	EL, 1μF, ±20%, 50V
CQ40	24436910	CD, 91pF
CQ45	24212102	CD, 1000pF, ±10%
CQ46	24212102	CD, 1000pF, ±10%
CR12	24538104	PF, 0.1μF
CR13	24538104	PF, 0.1μF
CR14	24538104	PF, 0.1μF
CR21	24232103	CD, 0.01μF, +80%, −20%
CR22	24203470	EL, 47μF, ±20%, 16V
CR23	24794101	EL, 100μF, ±20%, 16V
CR24	24794101	EL, 100μF, ±20%, 16V
CR25	24794101	EL, 100μF, ±20%, 16V
CR26	24591223	PF, 0.022μF
CR27	24591223	PF, 0.022μF
CR28	24591223	PF, 0.022μF
CR29	24794100	EL, 10μF, ±20%, 16V
CR30	24591223	PF, 0.022μF
CR31	24797229	EL, 2.2μF, ±20%, 50V
CR32	24591223	PF, 0.022μF
CR33	24232103	CD, 0.01μF, +80%, −20%
CR35	24794470	EL, 47μF, ±20%, 16V
CR36	24232103	CD, 0.01μF, +80%, −20%
CR40	24794470	EL, 47μF, ±20%, 16V
CR41	24232103	CD, 0.01μF, +80%, −20%
CR42	24203101	EL, 100μF, ±20%, 16V
CR43	24794101	EL, 100μF, ±20%, 16V
CR44	24794101	EL, 100μF, ±20%, 16V
CS01	24085944	EL, 2.2μF, ±20%, 50V, Non-Polar
CS02	24085944	EL, 2.2μF, ±20%, 50V, Non-Polar
CS03	24206229	EL, 2.2μF, 50V
CS04	24206229	EL, 2.2μF, 50V
CS05	24206229	EL, 2.2μF, 50V
CS06	24206229	EL, 2.2μF, 50V
CS07	24206229	EL, 2.2μF, 50V
CS08	24206229	EL, 2.2μF, 50V
CS09	24206010	EL, 1μF, 50V
CS12	24474102	CD, 1000pF, ±10%
CS13	24474102	CD, 1000pF, ±10%
CS14	24206100	EL, 10μF, 50V
CS15	24206100	EL, 10μF, 50V
CS17	24666100	EL, 10μF, ±20%, 16V
CS18	24666100	EL, 10μF, ±20%, 16V
CS19	24206478	EL, 0.47μF, 50V
CS22	24666100	EL, 10μF, ±20%, 16V
CS23	24666100	EL, 10μF, ±20%, 16V
CV01	24590103	PF, 0.01μF

Location No.	Part No.	Description
CV02	24085970	EL, 10μF, ±20%, 16V, Non-Polar
CV03	24666100	EL, 10μF, ±20%, 16V
CV04	24666100	EL, 10μF, ±20%, 16V
CV05	24232103	CD, 0.01μF, +80%, −20%
CV06	24666100	EL, 10μF, ±20%, 16V
CV07	24232103	CD, 0.01μF, +80%, −20%
CV08	24763102	EL, 1000μF, ±20%, 16V
CV09	24666100	EL, 10μF, ±20%, 16V
CV10	24085970	EL, 10μF, ±20%, 16V, Non-Polar
CV11	24436331	CD, 330pF
CV12	24092398	CD, 0.1μF, +80%, −20%
CV13	24232103	CD, 0.01μF, +80%, −20%
CV14	24474102	CD, 1000pF, ±10%
CV15	24474102	CD, 1000pF, ±10%
CV16	24474102	CD, 1000pF, ±10%
CV17	24474102	CD, 1000pF, ±10%
CV18	24474102	CD, 1000pF, ±10%
CV19	24474102	CD, 1000pF, ±10%
CV20	24353330	CD, 33pF
CV23	24666101	EL, 100μF, ±20%, 16V
CV24	24232103	CD, 0.01μF, +80%, −20%
CV25	24763471	EL, 470μF, ±20%, 16V
CV34	24474102	CD, 1000pF, ±10%
CV35	24212102	CD, 1000pF, ±10%
CV37	24474102	CD, 1000pF, ±10%
CV39	24666101	EL, 100μF, ±20%, 16V
CV40	24232103	CD, 0.01μF, +80%, −20%
CV42	24085944	EL, 2.2μF, ±20%, 50V, Non-Polar
CV46	24212332	CD, 3300pF, ±10%
CV47	24212332	CD, 3300pF, ±10%
CV48	24212102	CD, 1000pF, ±10%
CV65	24203101	EL, 100μF, ±20%, 16V
CV66	24203101	EL, 100μF, ±20%, 16V
CV67	24763471	EL, 470μF, ±20%, 16V
CV68	24763471	EL, 470μF, ±20%, 16V
CV77	24666100	EL, 10μF, ±20%, 16V
CV80	24232103	CD, 0.01μF, +80%, −20%
CX102	24085939	EL, 4.7μF, ±20%, 25V, Non-Polar
CX103	24092399	Chip, 0.1μF, +80%,−20%, 16V
CX104	24092399	Chip, 0.1μF, +80%,−20%, 16V
CX105	24105330	Chip, 33pF
CX106	24105680	Chip, 68pF
CX107	24105330	Chip, 33pF
CX108	24092399	Chip, 0.1μF, +80%,−20%, 16V
CX109	24085945	EL, 2.2μF, ±20%, 50V, Non-Polar
CX110	24665471	EL, 470μF, ±20%, 10V
CX111	24092399	Chip, 0.1μF, +80%,−20%, 16V
CX112	24092399	Chip, 0.1μF, +80%,−20%, 16V
CX113	24092399	Chip, 0.1μF, +80%,−20%, 16V
CX114	24092399	Chip, 0.1μF, +80%,−20%, 16V
CX115	24203470	EL, 47μF, ±20%, 16V
CX116	24092399	Chip, 0.1μF, +80%,−20%, 16V
CX117	24092399	Chip, 0.1μF, +80%,−20%, 16V
CX118	24794101	EL, 100μF, ±20%, 16V
CX119	24092399	Chip, 0.1μF, +80%,−20%, 16V
CX120	24105470	Chip, 47pF
CX125	24105101	Chip, 100pF
CX126	24105271	Chip, 270pF
CX127	24092399	Chip, 0.1μF, +80%,−20%, 16V

Location No.	Part No.	Description
CX128	24085971	EL, 3.3μF, ±20%, 50V, Non-Polar
CX129	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX130	24794101	EL, 100μF, ±20%, 16V
CX131	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX132	24794101	EL, 100μF, ±20%, 16V
CX133	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX134	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX136	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX137	24665101	EL, 100μF, ±20%, 10V
CX138	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX139	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX149	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX141	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX146	24105470	Chip, 47pF
CX147	24105101	Chip, 100pF
CX148	24105271	Chip, 270pF
CX149	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX150	24085971	EL, 3.3μF, ±20%, 50V, Non-Polar
CX151	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX152	24203470	EL, 47μF, ±20%, 16V
CX153	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX154	24794101	EL, 100μF, ±20%, 16V
CX155	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX156	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX157	24105150	Chip, 15pF
CX158	24105330	Chip, 33pF
CX201	24203470	EL, 47μF, ±20%, 16V
CX202	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX203	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX204	24203220	EL, 22μF, ±20%, 16V
CX205	24665101	EL, 100μF, ±20%, 10V
CX206	24203101	EL, 100μF, ±20%, 16V
CX207	24665101	EL, 100μF, ±20%, 10V
CX208	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX209	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX210	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX211	24203100	EL, 10μF, ±20%, 16V
CX212	24665101	EL, 100μF, ±20%, 10V
CX220	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX221	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX222	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX223	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX224	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX226	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX227	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX228	24092441	Chip, 1μF, +80%,–20%, 16V
CX229	24092441	Chip, 1μF, +80%,–20%, 16V
CX230	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX232	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX233	24762102	EL, 1000μF, ±20%, 10V
CX234	24762102	EL, 1000μF, ±20%, 10V
CX301	24665101	EL, 100μF, ±20%, 10V
CX302	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX303	24665101	EL, 100μF, ±20%, 10V
CX304	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX305	24092441	Chip, 1μF, +80%,–20%, 16V
CX306	24105330	Chip, 33pF
CX307	24105330	Chip, 33pF
CX308	24105101	Chip, 100pF
CX309	24105680	Chip, 68pF
CX310	24105101	Chip, 100pF
CX311	24105680	Chip, 68pF

Location No.	Part No.	Description
CX312	24105100	Chip, 10pF
CX313	24105100	Chip, 10pF
CX314	24105100	Chip, 10pF
CX400	24108221	Chip, 220pF
CX401	24108330	Chip, 33pF
CX402	24108330	Chip, 33pF
CX403	24108221	Chip, 220pF
CX404	24108221	Chip, 220pF
CX405	24108221	Chip, 220pF
CX406	24108221	Chip, 220pF
CX407	24109102	Chip, 1000pF, ±10%
CX408	24108221	Chip, 220pF
CX409	24105120	Chip, 12pF
CX410	24105220	Chip, 22pF
CX411	24105220	Chip, 22pF
CX412	24105220	Chip, 22pF
CX413	24105220	Chip, 22pF
CX414	24105220	Chip, 22pF
CX415	24108221	Chip, 220pF
CX801	24763471	EL, 470μF, ±20%, 16V
CX802	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX803	24665471	EL, 470μF, ±20%, 10V
CX804	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX805	24092399	Chip, 0.1μF, +80%,–20%, 16V
CX806	24092399	Chip, 0.1μF, +80%,–20%, 16V
CZ08	24203100	EL, 10μF, ±20%, 16V
CZ09	24436220	CD, 22pF
CZ10	24473180	CD, 18pF
CZ11	24473100	CD, 10pF
CZ12	24232103	CD, 0.01μF, +80%, –20%
CZ13	24092398	CD, 0.1μF, +80%,–20%
CZ14	24617816	EL, 10μF, ±20%, 50V
CZ15	24232103	CD, 0.01μF, +80%, –20%
CZ16	24206478	EL, 0.47μF, 50V
CZ17	24232103	CD, 0.01μF, +80%, –20%
CZ19	24436181	CD, 180pF
CZ20	24538103	PF, 0.01μF
CZ21	24436390	CD, 39pF
CZ22	24617816	EL, 10μF, ±20%, 50V
CZ23	24092398	CD, 0.1μF, +80%,–20%
CZ24	24092398	CD, 0.1μF, +80%,–20%
CZ25	24203101	EL, 100μF, ±20%, 16V
CZ26	24232103	CD, 0.01μF, +80%, –20%
CZ28	24232103	CD, 0.01μF, +80%, –20%
CZ29	24092398	CD, 0.1μF, +80%,–20%
CZ30	24617816	EL, 10μF, ±20%, 50V
CZ32	24436120	CD, 12pF
CZ33	24436120	CD, 12pF
CZ34	24473120	CD, 12pF
CZ35	24473120	CD, 12pF
CZ37	24092398	CD, 0.1μF, +80%,–20%
CZ38	24092398	CD, 0.1μF, +80%,–20%
CZ45	24436100	CD, 10pF, ±0.25pF
CZ48	24203470	EL, 47μF, ±20%, 16V

RESISTORS

R101	24382223	OMF, 22k ohm, 1W
R201	24366681	CF, 680 ohm
R202	24366821	CF, 820 ohm
R203	24366100	CF, 10 ohm
R204	24366104	CF, 100k ohm
R205	24366101	CF, 100 ohm
R206	24366222	CF, 2200 ohm
R207	24366101	CF, 100 ohm

Location No.	Part No.	Description
R208(U903B)	24366103	CF, 10k ohm
R208(U902A)	24366101	CF, 100 ohm
R209(U902A)	24366101	CF, 100 ohm
R209(U903B)	24366103	CF, 10k ohm
R211	24366563	CF, 56k ohm
R215	24366102	CF, 1k ohm
R216	24366103	CF, 10k ohm
R217(U902A)	24366101	CF, 100 ohm
R217(U903B)	24366332	CF, 3300 ohm
R218	24366513	CF, 51k ohm
R220	24366102	CF, 1k ohm
R221	24366102	CF, 1k ohm
R223	24366102	CF, 1k ohm
R226	24366101	CF, 100 ohm
R227	24367223	CF, 22k ohm, ±2%
R229	24366472	CF, 4700 ohm
R232	24366103	CF, 10k ohm
R233	24366104	CF, 100k ohm
R234	24366271	CF, 270 ohm
R235	24366472	CF, 4700 ohm
R236	24366102	CF, 1k ohm
R237	24366103	CF, 10k ohm
R299	24366103	CF, 10k ohm
R303	24321109	MF, 1 ohm, 1/2W
R304	24366153	CF, 15k ohm
R305	24322129	MF, 1.2 ohm, 1W
R306	24366222	CF, 2200 ohm
R307	24366621	CF, 620 ohm
R308	24366472	CF, 4700 ohm
R309	24366333	CF, 33k ohm
R310	24366102	CF, 1k ohm
R312	24366163	CF, 16k ohm
R313	24366303	CF, 30k ohm
R314	24366105	CF, 1M ohm
R315	24366684	CF, 680k ohm
R316	24366154	CF, 150k ohm
R317	24366472	CF, 4700 ohm
R318	24366471	CF, 470 ohm
R319	24366471	CF, 470 ohm
R320	24366101	CF, 100 ohm
R321	24366103	CF, 10k ohm
R322	24366102	CF, 1k ohm
R323	24366103	CF, 10k ohm
R324	24366122	CF, 1200 ohm
R325(U902A)	24366103	CF, 10k ohm
R325(U903B)	24366103	CF, 10k ohm
R327	24339339	MF, 3.3 ohm, 2W
R328	24366102	CF, 1k ohm
R329	24366103	CF, 10k ohm
R330	24366113	CF, 11k ohm
R331	24366104	CF, 100k ohm
R336	24383271	OMF, 270 ohm, 2W
R341	24366822	CF, 8200 ohm
R343	24366153	CF, 15k ohm
R344	24383821	OMF, 820 ohm, 2W
R360	24366103	CF, 10k ohm
R370	24322159	OMF, 1.5 ohm, 1W
R371	24366562	CF, 5600 ohm
R372	24366392	CF, 3900 ohm
R373	24366182	CF, 1800 ohm
R374	24366153	CF, 15k ohm
R399	24366684	CF, 680k ohm
R401	24366391	CF, 390 ohm
R402	24366103	CF, 10k ohm

Location No.	Part No.	Description
R403	24366242	CF, 2400 ohm
R405	24553682	OMF, 6800 ohm, 1W
R407	24366103	CF, 10k ohm
R411	24366560	CF, 56 ohm
R414	24383220	OMF, 22 ohm, 2W
R415	24553561	OMF, 560 ohm, 1W
R416	24381563	OMF, 56k ohm, 1/2W
R417	24510101	Cement, 100 ohm, 5W
R424	24366152	CF, 1500 ohm
R425	24366182	CF, 1800 ohm
R426	24366751	CF, 750 ohm
R427	24366392	CF, 3900 ohm
R428	24366561	CF, 560 ohm
R429	24552560	OMF, 56 ohm, 1/2W
R441	24383561	OMF, 560 ohm, 2W
R460	24552332	OMF, 3300 ohm, 1/2W
R461	24552182	OMF, 1800 ohm, 1/2W
R463	24323229	MF, 2.2 ohm, 2W
R464	24366273	CF, 27k ohm
R465	24366114	CF, 110k ohm
R466	24366562	CF, 5600 ohm
R469	24531150	FR, 15 ohm, 1/2W
R470	24339568	OMF, 0.56 ohm, 2W
R471	24531271	FR, 270 ohm, 1/2W
R473	24366473	CF, 47k ohm
R474	24366473	CF, 47k ohm
R478	24376333	CF, 33k ohm, 1/2W
R479	24531680	FR, 68 ohm, 1/2W
R480	24552222	OMF, 2200 ohm, 1/2W
R481	24366223	CF, 22k ohm
R482	24366103	CF, 10k ohm
R487	24366474	CF, 470k ohm
R488	24366154	CF, 150k ohm
R490	24366101	CF, 100 ohm
R491	24366101	CF, 100 ohm
R492	24366272	CF, 2700 ohm
R499	24366182	CF, 1800 ohm
R501	24366223	CF, 22k ohm
R502	24366101	CF, 100 ohm
R503	24366101	CF, 100 ohm
R505	24366102	CF, 1k ohm
R506	24366103	CF, 10k ohm
R508	24366102	CF, 1k ohm
R509	24366102	CF, 1k ohm
R510	24366102	CF, 1k ohm
R511	24366101	CF, 100 ohm
R512	24366101	CF, 100 ohm
R513	24366472	CF, 4700 ohm
R514	24366472	CF, 4700 ohm
R518	24366472	CF, 4700 ohm
R519	24366101	CF, 100 ohm
R520	24366103	CF, 10k ohm
R521	24366223	CF, 22k ohm
R522	24366473	CF, 47k ohm
R609	24366563	CF, 56k ohm
R610	24366103	CF, 10k ohm
R611	24366103	CF, 10k ohm
R612	24366103	CF, 10k ohm
R640	24366222	CF, 2200 ohm
R641	24366182	CF, 1800 ohm
R642	24366562	CF, 5600 ohm
R643	24366562	CF, 5600 ohm
R644	24366473	CF, 47k ohm
R645	24366229	CF, 2.2 ohm

Location No.	Part No.	Description
R646	24366223	CF, 22k ohm
R648	24366229	CF, 2.2 ohm
R649	24366223	CF, 22k ohm
R660	24510159	Cement, 1.5 ohm, 5W
R661(U903B)	24552221	OMF, 220 ohm, 1/2W
R661(U902A)	24510159	Cement, 1.5 ohm, 5W
R662	24552221	OMF, 220 ohm, 1/2W
R670	24366272	CF, 2700 ohm
R671(U902A)	24366392	CF, 3900 ohm
R671(U904)	24366102	CF, 1k ohm
R672(U902A)	24366272	CF, 2700 ohm
R672(U904)	24366102	CF, 1k ohm
R673(U902A)	24366392	CF, 3900 ohm
R673(U904)	24366102	CF, 1k ohm
R674	24366332	CF, 3300 ohm
R675(U904)	24366102	CF, 1k ohm
R675(U902A)	24366392	CF, 3900 ohm
R676(U904)	24366223	CF, 22k ohm
R676(U902A)	24366223	CF, 22k ohm
R677(U904)	24366223	CF, 22k ohm
R677(U902A)	24366223	CF, 22k ohm
R678	24366223	CF, 22k ohm
R679	24366223	CF, 22k ohm
R680(U902A)	24366473	CF, 47k ohm
R680(U904)	24366223	CF, 22k ohm
R681	24366223	CF, 22k ohm
R682	24366104	CF, 100k ohm
R683	24366273	CF, 27k ohm
R684	24366229	CF, 2.2 ohm
R685	24366229	CF, 2.2 ohm
R686	24366229	CF, 2.2 ohm
R688	24366222	CF, 2200 ohm
R689	24366104	CF, 100k ohm
R690	24366681	CF, 680 ohm
R691	24366681	CF, 680 ohm
R692	24366681	CF, 680 ohm
R693	24366681	CF, 680 ohm
R702	24552221	OMF, 220 ohm, 1/2W
R712	24366101	CF, 100 ohm
R715	24366393	CF, 39k ohm
R716	24366273	CF, 27k ohm
R717	24366333	CF, 33k ohm
R718	24366102	CF, 1k ohm
R722	24552471	OMF, 470 ohm, 1/2W
R723	24366151	CF, 150 ohm
R724	24366121	CF, 120 ohm
R725	24366182	CF, 1800 ohm
R730	24552100	OMF, 10 ohm, 1/2W
R731	24553331	OMF, 330 ohm, 1W
R732	24366220	CF, 22 ohm
R733	24366683	CF, 68k ohm
R734	24366220	CF, 22 ohm
R735	24366683	CF, 68k ohm
R736	24366560	CF, 56 ohm
R737	24366152	CF, 1500 ohm
R738	24366123	CF, 12k ohm
R739	24366152	CF, 1500 ohm
R740	24366560	CF, 56 ohm
R741	24366279	CF, 2.7 ohm
R742	24366279	CF, 2.7 ohm
R743	24554101	OMF, 100 ohm, 2W
R744	24366122	CF, 1200 ohm
R745	24366122	CF, 1200 ohm

Location No.	Part No.	Description
⚠R801	24009954	Metal-Glazed Resistor, 2.2M ohm, 1/2W
R802	24321568	MF, 0.56 ohm, 1/2W
R803	24382683	OMF, 68k ohm, 1W
R805	24552101	OMF, 100 ohm, 1/2W
R806	24552392	OMF, 3900 ohm, 1/2W
⚠R808	24019340	PTC Thermistor, 18 ohm, 290V
R810	24007492	Cement, 2.2 ohm, 20W
R811	24568271	Cement, 270 ohm, 7W
R814	24366122	CF, 1200 ohm
R815	24552102	OMF, 1k ohm, 1/2W
R816	24323759	OMF, 7.5 ohm, 2W
R818	24322228	MF, 0.22 ohm, 1W
R819	24321279	MF, 2.7 ohm, 1/2W
R821	24366101	CF, 100 ohm
R822	24552103	OMF, 10k ohm, 1/2W
R823	24366272	CF, 2700 ohm
R824	24569101	Cement, 100 ohm, 10W
R825	24569100	Cement, 10 ohm, 10W
R827	24366681	CF, 680 ohm
R828	24366821	CF, 820 ohm
R829	24322228	MF, 0.22 ohm, 1W
R830	24366471	CF, 470 ohm
R831	24366471	CF, 470 ohm
R832	24366472	CF, 4700 ohm
R833	24366222	CF, 2200 ohm
R841	24531120	FR, 12 ohm, 1/2W
R842	24552392	OMF, 3900 ohm, 1/2W
R846	24366561	CF, 560 ohm
R847	24366472	CF, 4700 ohm
R890	24553333	OMF, 33k ohm, 1W
R899	24005007	Metal-Glazed Resistor, 8.2M ohm, 1W
R901	24376821	CF, 820 ohm, 1/2W
R902	24376821	CF, 820 ohm, 1/2W
R903	24376821	CF, 820 ohm, 1/2W
R904	24366472	CF, 4700 ohm
R905	24366150	CF, 15 ohm
R906	24366102	CF, 1k ohm
R907	24366102	CF, 1k ohm
R908	24366102	CF, 1k ohm
R909	24366222	CF, 2200 ohm
R914	24366101	CF, 100 ohm
R915	24366101	CF, 100 ohm
R916	24366330	CF, 33 ohm
R917	24366181	CF, 180 ohm
R918	24366100	CF, 10 ohm
R920	24000568	FR, 4.7 ohm, 1W
R921	24366101	CF, 100 ohm
R922	24366101	CF, 100 ohm
R924	24366100	CF, 10 ohm
R925	24366181	CF, 180 ohm
R928	24366101	CF, 100 ohm
R929	24366101	CF, 100 ohm
R930	24366100	CF, 10 ohm
R932	24366332	CF, 3300 ohm
R933	24366750	CF, 75 ohm
R934	24366391	CF, 390 ohm
R935	24366821	CF, 820 ohm
R936	24366750	CF, 75 ohm
R937	24366181	CF, 180 ohm
R939	24366101	CF, 100 ohm
R942	24366392	CF, 3900 ohm

Location No.	Part No.	Description
R943	24366392	CF, 3900 ohm
R944	24366392	CF, 3900 ohm
R945	24366330	CF, 33 ohm
R946	24366330	CF, 33 ohm
R960	24383153	OMF, 15k ohm, 2W
R961	24383153	OMF, 15k ohm, 2W
R962	24383153	OMF, 15k ohm, 2W
R963	24383153	OMF, 15k ohm, 2W
R964	24383153	OMF, 15k ohm, 2W
R965	24383153	OMF, 15k ohm, 2W
R966	24383153	OMF, 15k ohm, 2W
R967	24383153	OMF, 15k ohm, 2W
R968	24383153	OMF, 15k ohm, 2W
R969	24366101	CF, 100 ohm
R970	24366101	CF, 100 ohm
R971	24366101	CF, 100 ohm
R977	24366681	CF, 680 ohm
R980	24366471	CF, 470 ohm
R981	24366821	CF, 820 ohm
R982	24366103	CF, 10k ohm
R983	24366222	CF, 2200 ohm
R984	24366152	CF, 1500 ohm
R985	24366471	CF, 470 ohm
R986	24366681	CF, 680 ohm
R987	24366681	CF, 680 ohm
R988	24366472	CF, 4700 ohm
R989	24366332	CF, 3300 ohm
R990	24366222	CF, 2200 ohm
R991	24366681	CF, 680 ohm
R992	24366150	CF, 15 ohm
R4034	24366332	CF, 3300 ohm
R4301	24366222	CF, 2200 ohm
R4302	24366103	CF, 10k ohm
R4303	24019090	MF, 330k ohm, 1%, 1/4W
R4305	24366471	CF, 470 ohm
R4306	24366472	CF, 4700 ohm
R4350	24066873	VR, 100k ohm, 0.3W
R4401	24366103	CF, 10k ohm
R4402	24366222	CF, 2200 ohm
R4403	24000639	MF, 22k ohm, ±1%, 1/4W
R4404	24000364	MF, 1800 ohm, ±1%, 1/4W
R4405	24000247	MF, 39k ohm, ±1%, 1/4W
R4406	24000220	MF, 390 ohm, ±1%
R4408	24000637	MF, 15k ohm, ±1%, 1/4W
R4409	24000361	MF, 1300 ohm, ±1%, 1/4W
R4410	24552470	OMF, 47 ohm, 1/2W
R4411	24366472	CF, 4700 ohm
R4412	24366103	CF, 10k ohm
R4413	24366751	CF, 750 ohm
R4420	24000639	MF, 22k ohm, ±1%, 1/4W
R4421	24366103	CF, 10k ohm
R4422	24366473	CF, 47k ohm
R4423	24366223	CF, 22k ohm
R4424	24366103	CF, 10k ohm
R4450	24066878	VR, 2k ohm, 0.3W
RA03	24366102	CF, 1k ohm
RA04	24366102	CF, 1k ohm
RA05	24366102	CF, 1k ohm
RA07	24366102	CF, 1k ohm
RA08	24366102	CF, 1k ohm
RA09	24366102	CF, 1k ohm
RA10	24366102	CF, 1k ohm
RA11	24366102	CF, 1k ohm
RA12	24366473	CF, 47k ohm

Location No.	Part No.	Description
RA13	24366153	CF, 15k ohm
RA16	24366102	CF, 1k ohm
RA17	24366102	CF, 1k ohm
RA18	24366102	CF, 1k ohm
RA27	24366102	CF, 1k ohm
RA33	24366102	CF, 1k ohm
RA35	24366102	CF, 1k ohm
RA36	24366472	CF, 4700 ohm
RA37	24366101	CF, 100 ohm
RA38	24366101	CF, 100 ohm
RA49	24366470	CF, 47 ohm
RA61	24366103	CF, 10k ohm
RA62	24366103	CF, 10k ohm
RA63	24366103	CF, 10k ohm
RA64	24366103	CF, 10k ohm
RA67	24366472	CF, 4700 ohm
RA68	24366472	CF, 4700 ohm
RA70	24366333	CF, 33k ohm
RA71	24366683	CF, 68k ohm
RA72	24366223	CF, 22k ohm
RA73	24366103	CF, 10k ohm
RA74	24366103	CF, 10k ohm
RA75	24366333	CF, 33k ohm
RA76	24366103	CF, 10k ohm
RA77	24366472	CF, 4700 ohm
RA78	24366472	CF, 4700 ohm
RA79	24366103	CF, 10k ohm
RB01	24366271	CF, 270 ohm
RB02	24366271	CF, 270 ohm
RB03	24366101	CF, 100 ohm
RB09	24366470	CF, 47 ohm
RB10	24366101	CF, 100 ohm
RB11	24366103	CF, 10k ohm
RB30	24366103	CF, 10k ohm
RB40	24366103	CF, 10k ohm
RB41	24366182	CF, 1800 ohm
RB42	24366102	CF, 1k ohm
RB43	24366103	CF, 10k ohm
RB44	24366103	CF, 10k ohm
RB45	24366101	CF, 100 ohm
RD01	24872101	Chip, 100 ohm, 1/16W
RD02	24872101	Chip, 100 ohm, 1/16W
RD03	24872473	Chip, 47k ohm, 1/16W
RD04	24872101	Chip, 100 ohm, 1/16W
RD05	24872101	Chip, 100 ohm, 1/16W
RD06	24872101	Chip, 100 ohm, 1/16W
RD07	24872101	Chip, 100 ohm, 1/16W
RD08	24872101	Chip, 100 ohm, 1/16W
RD28	24872101	Chip, 100 ohm, 1/16W
RD29	24872101	Chip, 100 ohm, 1/16W
RD30	24872223	Chip, 22k ohm, 1/16W
RD31	24872223	Chip, 22k ohm, 1/16W
RD32	24872223	Chip, 22k ohm, 1/16W
RD33	24872101	Chip, 100 ohm, 1/16W
RD34	24872102	Chip, 1k ohm, 1/16W
RD35	24872102	Chip, 1k ohm, 1/16W
RD36	24872101	Chip, 100 ohm, 1/16W
RD37	24872223	Chip, 22k ohm, 1/16W
RD38	24872223	Chip, 22k ohm, 1/16W
RD39	24872101	Chip, 100 ohm, 1/16W
RD40	24872101	Chip, 100 ohm, 1/16W
RF01	24366222	CF, 2200 ohm
RF03	24366472	CF, 4700 ohm
RF04	24366472	CF, 4700 ohm

Location No.	Part No.	Description
RF06	24366102	CF, 1k ohm
RF08	24366100	CF, 10 ohm
RF09	24366100	CF, 10 ohm
RF10	24366100	CF, 10 ohm
RF11	24366103	CF, 10k ohm
RF12	24366101	CF, 100 ohm
RF13	24366101	CF, 100 ohm
RF14	24366101	CF, 100 ohm
RF15	24366103	CF, 10k ohm
RF16	24366471	CF, 470 ohm
RF20	24366472	CF, 4700 ohm
RF21	24366102	CF, 1k ohm
RF22	24366102	CF, 1k ohm
RF26	24366102	CF, 1k ohm
RQ01	24366102	CF, 1k ohm
RQ03	24366102	CF, 1k ohm
RQ04	24366511	CF, 510 ohm
RQ05	24366471	CF, 470 ohm
RQ06	24366471	CF, 470 ohm
RQ07	24366103	CF, 10k ohm
RQ08	24366102	CF, 1k ohm
RQ09	24366102	CF, 1k ohm
RQ10	24366102	CF, 1k ohm
RQ11	24366561	CF, 560 ohm
RQ12	24366561	CF, 560 ohm
RQ13	24366203	CF, 20k ohm
RQ14	24366273	CF, 27k ohm
RQ20	24366563	CF, 56k ohm
RR12	24366151	CF, 150 ohm
RR13	24366151	CF, 150 ohm
RR14	24366151	CF, 150 ohm
RR21	24366102	CF, 1k ohm
RR22	24366102	CF, 1k ohm
RR23	24366562	CF, 5600 ohm
RR24	24366332	CF, 3300 ohm
RR25	24366302	CF, 3k ohm
RR27	24366162	CF, 1600 ohm
RR29	24366101	CF, 100 ohm
RR30	24366101	CF, 100 ohm
RR33	24366101	CF, 100 ohm
RR34	24366102	CF, 1k ohm
RR35	24366102	CF, 1k ohm
RR36	24366103	CF, 10k ohm
RR38	24366222	CF, 2200 ohm
RR39	24366222	CF, 2200 ohm
RR40	24366471	CF, 470 ohm
RR41	24366473	CF, 47k ohm
RR42	24366101	CF, 100 ohm
RR43	24366101	CF, 100 ohm
RR44	24366101	CF, 100 ohm
RR50	24366101	CF, 100 ohm
RR51	24366101	CF, 100 ohm
RR52	24366101	CF, 100 ohm
RR60	24366472	CF, 4700 ohm
RR61	24366392	CF, 3900 ohm
RR62	24366302	CF, 3k ohm
RR63	24366102	CF, 1k ohm
RR64	24366162	CF, 1600 ohm
RR65	24366102	CF, 1k ohm
RR66	24366101	CF, 100 ohm
RR67	24366101	CF, 100 ohm
RS01	24366681	CF, 680 ohm
RS02	24366681	CF, 680 ohm
RS03	24366101	CF, 100 ohm

Location No.	Part No.	Description
RS04	24366101	CF, 100 ohm
RS05	24366472	CF, 4700 ohm
RS06	24366472	CF, 4700 ohm
RS07	24366472	CF, 4700 ohm
RS08	24366472	CF, 4700 ohm
RS09	24366472	CF, 4700 ohm
RS10	24366472	CF, 4700 ohm
RS11	24366101	CF, 100 ohm
RS13	24366101	CF, 100 ohm
RS14	24366101	CF, 100 ohm
RS15	24366104	CF, 100k ohm
RS16	24366104	CF, 100k ohm
RS17	24366223	CF, 22k ohm
RS18	24366223	CF, 22k ohm
RS19	24366102	CF, 1k ohm
RS20	24366102	CF, 1k ohm
RS21	24366222	CF, 2200 ohm
RS22	24366222	CF, 2200 ohm
RS23	24366101	CF, 100 ohm
RS24	24366101	CF, 100 ohm
RS27	24366104	CF, 100k ohm
RS28	24366104	CF, 100k ohm
RS29	24366223	CF, 22k ohm
RS30	24366223	CF, 22k ohm
RS31	24366103	CF, 10k ohm
RS32	24366104	CF, 100k ohm
RS35	24366223	CF, 22k ohm
RS36	24366223	CF, 22k ohm
RS37	24366104	CF, 100k ohm
RS38	24366104	CF, 100k ohm
RS43	24366681	CF, 680 ohm
RS44	24366681	CF, 680 ohm
RS45	24366681	CF, 680 ohm
RS46	24366681	CF, 680 ohm
RV01	24366101	CF, 100 ohm
RV02	24366101	CF, 100 ohm
RV03	24366101	CF, 100 ohm
RV04	24366101	CF, 100 ohm
RV05	24366101	CF, 100 ohm
RV06	24366101	CF, 100 ohm
RV07	24366162	CF, 1600 ohm
RV08	24366162	CF, 1600 ohm
RV09	24366101	CF, 100 ohm
RV10	24366101	CF, 100 ohm
RV12	24366681	CF, 680 ohm
RV13	24366681	CF, 680 ohm
RV16	24366471	CF, 470 ohm
RV18	24366123	CF, 12k ohm
RV19	24366101	CF, 100 ohm
RV22	24366102	CF, 1k ohm
RV23	24552101	OMF, 100 ohm, 1/2W
RV25	24366101	CF, 100 ohm
RV26	24366181	CF, 180 ohm
RV27	24366750	CF, 75 ohm
RV28	24366683	CF, 68k ohm
RV29	24366273	CF, 27k ohm
RV30	24366750	CF, 75 ohm
RV32	24366750	CF, 75 ohm
RV33	24366123	CF, 12k ohm
RV34	24366123	CF, 12k ohm
RV35	24366103	CF, 10k ohm
RV36	24366101	CF, 100 ohm
RV38	24366750	CF, 75 ohm
RV40	24366102	CF, 1k ohm

Location No.	Part No.	Description
RV41	24366104	CF, 100k ohm
RV42	24366471	CF, 470 ohm
RV43	24366471	CF, 470 ohm
RV44	24366471	CF, 470 ohm
RV45	24366100	CF, 10 ohm
RV46	24366112	CF, 1100 ohm
RV47	24366102	CF, 1k ohm
RV48	24366102	CF, 1k ohm
RV49	24366102	CF, 1k ohm
RV60	24366102	CF, 1k ohm
RV61	24552101	OMF, 100 ohm, 1/2W
RV62	24366101	CF, 100 ohm
RV63	24552820	OMF, 82 ohm, 1/2W
RV64	24366750	CF, 75 ohm
RV65	24552101	OMF, 100 ohm, 1/2W
RV66	24366101	CF, 100 ohm
RV67	24552820	OMF, 82 ohm, 1/2W
RV68	24366750	CF, 75 ohm
RV69	24366101	CF, 100 ohm
RV70	24366101	CF, 100 ohm
RV71	24366472	CF, 4700 ohm
RV75	24366332	CF, 3300 ohm
RV76	24366220	CF, 22 ohm
RV77	24366182	CF, 1800 ohm
RV78	24366221	CF, 220 ohm
RV79	24366680	CF, 68 ohm
RV80	24366102	CF, 1k ohm
RV81(U902A)	24366472	CF, 4700 ohm
RV81(U904)	24366750	CF, 75 ohm
RV82	24366153	CF, 15k ohm
RV83	24366103	CF, 10k ohm
RV85	24366750	CF, 75 ohm
RV86	24366750	CF, 75 ohm
RV87	24366750	CF, 75 ohm
RV89	24366750	CF, 75 ohm
RV90	24366681	CF, 680 ohm
RV91	24366681	CF, 680 ohm
RV92	24366100	CF, 10 ohm
RV93	24366104	CF, 100k ohm
RV94	24366103	CF, 10k ohm
RV95	24366222	CF, 2200 ohm
RV96	24366391	CF, 390 ohm
RV97	24366101	CF, 100 ohm
RV98	24366750	CF, 75 ohm
RX103	24871471	Chip, 470 ohm, 1/8W
RX104	24011105	Chip, 1M ohm, 1/20W
RX105	24011271	Chip, 270 ohm, 1/20W
RX106	24011102	Chip, 1K ohm, 1/20W
RX108	24011331	Chip, 330 ohm, 1/20W
RX109	24871221	Chip, 220 ohm, 1/8W
RX110	24011680	Chip, 68 ohm, 1/20W
RX111	24011561	Chip, 560 ohm, 1/20W
RX112	24871221	Chip, 220 ohm, 1/8W
RX120	24011470	Chip, 47 ohm, 1/20W
RX121	24011152	Chip, 1500 ohm, 1/20W
RX123	24011331	Chip, 330 ohm, 1/20W
RX125	24011102	Chip, 1K ohm, 1/20W
RX126	24871471	Chip, 470 ohm, 1/8W
RX127	24011471	Chip, 470 ohm, 1/20W
RX128	24871471	Chip, 470 ohm, 1/8W
RX136	24011470	Chip, 47 ohm, 1/20W
RX137	24011152	Chip, 1500 ohm, 1/20W
RX140	24011102	Chip, 1K ohm, 1/20W
RX141	24871471	Chip, 470 ohm, 1/8W

Location No.	Part No.	Description
RX142	24011470	Chip, 47 ohm, 1/20W
RX143	24011561	Chip, 560 ohm, 1/20W
RX144	24871221	Chip, 220 ohm, 1/8W
RX145	24011331	Chip, 330 ohm, 1/20W
RX146	24011470	Chip, 47 ohm, 1/20W
RX201	24011103	Chip, 10k ohm, 1/20W
RX202	24011681	Chip, 680 ohm, 1/20W
RX203	24011151	Chip, 150 ohm, 1/20W
RX204	24011472	Chip, 4700 ohm, 1/20W
RX205	24011332	Chip, 3300 ohm, 1/20W2
RX206	24011331	Chip, 330 ohm, 1/20W
RX207	24011102	Chip, 1k ohm, 1/20W
RX208	24011332	Chip, 3300 ohm, 1/20W
RX209	24011681	Chip, 680 ohm, 1/20W
RX223	24011220	Chip, 22 ohm, 1/20W
RX225	24011220	Chip, 22 ohm, 1/20W
RX301	24011151	Chip, 150 ohm, 1/20W
RX302	24011102	Chip, 1K ohm, 1/20W
RX303	24011220	Chip, 22 ohm, 1/20W
RX304	24871331	Chip, 330 ohm, 1/8W
RX305	24011221	Chip, 220 ohm, 1/20W
RX306	24011821	Chip, 820 ohm, 1/20W
RX307	24011220	Chip, 22 ohm, 1/20W
RX308	24871331	Chip, 330 ohm, 1/8W
RX309	24011221	Chip, 220 ohm, 1/20W
RX310	24011821	Chip, 820 ohm, 1/20W
RX311	24011220	Chip, 22 ohm, 1/20W
RX312	24871331	Chip, 330 ohm, 1/8W
RX313	24871331	Chip, 330 ohm, 1/8W
RX314	24871331	Chip, 330 ohm, 1/8W
RX315	24871471	Chip, 470 ohm, 1/8W
RX400	24011102	Chip, 1K ohm, 1/20W
RX401	24011471	Chip, 470 ohm, 1/20W
RX402	24011471	Chip, 470 ohm, 1/20W
RX403	24011471	Chip, 470 ohm, 1/20W
RX404	24011102	Chip, 1K ohm, 1/20W
RX405	24011221	Chip, 220 ohm, 1/20W
RX406	24011221	Chip, 220 ohm, 1/20W
RX407	24011221	Chip, 220 ohm, 1/20W
RX408	24011221	Chip, 220 ohm, 1/20W
RX409	24011121	Chip, 120 ohm, 1/20W
RZ01	24366471	CF, 470 ohm
RZ02	24366152	CF, 1500 ohm
RZ04	24366332	CF, 3300 ohm
RZ05	24366332	CF, 3300 ohm
RZ06	24366821	CF, 820 ohm
RZ07	24366272	CF, 2700 ohm
RZ08	24366302	CF, 3k ohm
RZ12	24366471	CF, 470 ohm
RZ18	24366821	CF, 820 ohm
RZ19	24366471	CF, 470 ohm
RZ20	24366122	CF, 1200 ohm
RZ21	24366680	CF, 68 ohm
RZ22	24366101	CF, 100 ohm
RZ23	24366821	CF, 820 ohm
RZ24	24366821	CF, 820 ohm
RZ25	24366101	CF, 100 ohm
RZ26	24366101	CF, 100 ohm
RZ28	24366821	CF, 820 ohm
RZ29	24366331	CF, 330 ohm
RZ30	24366331	CF, 330 ohm
RZ31	24366102	CF, 1k ohm

Location No.	Part No.	Description
COILS & TRANSFORMERS		
L101	23221803	Coil, Choke, TLN3040D
L201	23238710	Coil, Peaking, TRF4220AJ
L203	23238708	Coil, Peaking, TRF4330AJ
L301	23103859	Coil (Ferrite Bead), TEM2011
L302	23289101	Coil, Peaking, TRF4101AF
L400	23289101	Coil, Peaking, TRF4101AF
L410	23103859	Coil (Ferrite Bead), TEM2011
L441	23233966	Coil, Linearity, TLN2158AY
L442	23248164	Coil, Choke, TLN3437AD
L443	23248165	Coil, Choke, TLN3438AD
L449	23103859	Coil (Ferrite Bead), TEM2011
L461	23248111	Coil, Choke, TLN3349D
L462	----------	DY, Supplied with V901.
L470	23103859	Coil (Ferrite Bead), TEM2011
L491	23211923	Coil, Choke, AT4043/100
L501	23289479	Coil, Peaking, TRF44R7AF
L503	23289470	Coil, Peaking, TRF4470AF
L507	23103824	Coil, TEM2028K
L508	23103824	Coil, TEM2028K
L509	23103824	Coil, TEM2028K
L510	23238718	Coil, Peaking, TRF4479AJ
L511	23103824	Coil, TEM2028K
L512	23103824	Coil, TEM2028K
L513	23103824	Coil, TEM2028K
L514	23103824	Coil, TEM2028K
L515	23103824	Coil, TEM2028K
L643	23103859	Coil (Ferrite Bead), TEM2011
L645	23103859	Coil (Ferrite Bead), TEM2011
L671	23103859	Coil (Ferrite Bead), TEM2011
L672	23103859	Coil (Ferrite Bead), TEM2011
L676	23238562	Coil, Peaking, TRF4109AJ
L677	23238562	Coil, Peaking, TRF4109AJ
L682	23289109	Coil, Peaking, TRF41R0AF
L683	23289109	Coil, Peaking, TRF41R0AF
L684	23238562	Coil, Peaking, TRF4109AJ
L685	23238562	Coil, Peaking, TRF4109AJ
L701	23289100	Coil, Peaking, TRF4100AF
L702	23261974	Coil, Choke, HC5-035
L704	23103859	Coil (Ferrite Bead), TEM2011
L705	23103859	Coil (Ferrite Bead), TEM2011
L801	23217361	Coil, Choke, TPW2009AZ
L811	23103859	Coil (Ferrite Bead), TEM2011
L814	23221747	Coil, Choke, TRF9253D
L875	23248087	Coil, Choke, TLN3312D
L883	23221747	Coil, Choke, TRF9253D
L885	23248073	Coil, Choke, TLN3299D
L886	23103859	Coil (Ferrite Bead), TEM2011
L889	23222694	Coil, Width, TLN2026
L891	23103859	Coil (Ferrite Bead), TEM2011
L892	23103859	Coil (Ferrite Bead), TEM2011
L893	23222694	Coil, Width, TLN2026
L896	23103859	Coil (Ferrite Bead), TEM2011
L897	23222694	Coil, Width, TLN2026
⚠ L901	23200276	Coil, Degaussing, TSB-2330BR
L902	23289101	Coil, Peaking, TRF4101AF
L903	23289101	Coil, Peaking, TRF4101AF
L904	23289101	Coil, Peaking, TRF4101AF
L905	23289220	Coil, Peaking, TRF4220AF
L906	23289220	Coil, Peaking, TRF4220AF
L907	23289220	Coil, Peaking, TRF4220AF
L908	23289100	Coil, Peaking, TRF4100AF
L910	23289109	Coil, Peaking, TRF41R0AF
L911	23289101	Coil, Peaking, TRF4101AF

Location No.	Part No.	Description
L912	23289150	Coil, Peaking, TRF4150AF
L913	23289150	Coil, Peaking, TRF4150AF
L914	23289150	Coil, Peaking, TRF4150AF
LA01	23289100	Coil, Peaking, TRF4100AF
LC05	23238562	Coil, Peaking, TRF4109AJ
LC06	23103859	Coil (Ferrite Bead), TEM2011
LC07	23238562	Coil, Peaking, TRF4109AJ
LC08	23238562	Coil, Peaking, TRF4109AJ
LD01	23238714	Coil, Peaking, TRF4100AJ
LD02	23238714	Coil, Peaking, TRF4100AJ
LD20	23103859	Coil (Ferrite Bead), TEM2011
LD21	23238714	Coil, Peaking, TRF4100AJ
LF01	23238506	Coil, Peaking, TRF4229AJ
LF02	23238506	Coil, Peaking, TRF4229AJ
LF03	23238506	Coil, Peaking, TRF4229AJ
LF04	23238506	Coil, Peaking, TRF4229AJ
LF06	23238562	Coil, Peaking, TRF4109AJ
LF07	23238562	Coil, Peaking, TRF4109AJ
LF08	23238714	Coil, Peaking, TRF4100AJ
LF09	23238714	Coil, Peaking, TRF4100AJ
LF10	23238562	Coil, Peaking, TRF4109AJ
LF11	23289109	Coil, Peaking, TRF41R0AF
LF13	23289100	Coil, Peaking, TRF4100AF
LQ01	23238709	Coil, Peaking, TRF4270AJ
LQ02	23238718	Coil, Peaking, TRF4479AJ
LQ03	23238718	Coil, Peaking, TRF4479AJ
LQ04	23238718	Coil, Peaking, TRF4479AJ
LS01	23289109	Coil, Peaking, TRF41R0AF
LV03	23103824	Coil, TEM2028K
LV06	23289109	Coil, Peaking, TRF41R0AF
LV07	23289109	Coil, Peaking, TRF41R0AF
LV08	23289330	Coil, Peaking, TRF4330AF
LV09	23289100	Coil, Peaking, TRF4100AF
LV42	23289100	Coil, Peaking, TRF4100AF
LV43	23289100	Coil, Peaking, TRF4100AF
LV49	23103824	Coil, TEM2028K
L4400	23221886	Coil, Choke, TLN3073
L4430	23289680	Coil, Peaking, TRF4680AF
LX101	23103822	Chip (Ferrite Bead), TEM2117T
LX102	23103822	Chip (Ferrite Bead), TEM2117T
LX103	23103822	Chip (Ferrite Bead), TEM2117T
LX104	23237989	Coil, Peaking, TRF4689AC
LX105	23103822	Chip (Ferrite Bead), TEM2117T
LX106	23103822	Chip (Ferrite Bead), TEM2117T
LX107	23289270	Coil, Peaking, TRF4270AF
LX108	23103822	Chip (Ferrite Bead), TEM2117T
LX109	23103822	Chip (Ferrite Bead), TEM2117T
LX110	23103822	Chip (Ferrite Bead), TEM2117T
LX111	23289270	Coil, Peaking, TRF4270AF
LX113	23103822	Chip (Ferrite Bead), TEM2117T
LX201	23103822	Chip (Ferrite Bead), TEM2117T
LX202	23103822	Chip (Ferrite Bead), TEM2117T
LX203	23103822	Chip (Ferrite Bead), TEM2117T
LX204	23103822	Chip (Ferrite Bead), TEM2117T
LX209	23103822	Chip (Ferrite Bead), TEM2117T
LX210	23103822	Chip (Ferrite Bead), TEM2117T
LX212	23103822	Chip (Ferrite Bead), TEM2117T
LX214	23103822	Chip (Ferrite Bead), TEM2117T
LX215	23103822	Chip (Ferrite Bead), TEM2117T
LX216	23103822	Chip (Ferrite Bead), TEM2117T
LX217	23103822	Chip (Ferrite Bead), TEM2117T
LX218	23103822	Chip (Ferrite Bead), TEM2117T
LX301	23103822	Chip (Ferrite Bead), TEM2117T
LX302	23103822	Chip (Ferrite Bead), TEM2117T

Location No.	Part No.	Description
LX303	24000824	Chip, Jumper, 2125 type
LX306	23103822	Chip (Ferrite Bead), TEM2117T
LX307	23289229	Coil, Peaking, TRF42R2AF
LX308	23289100	Coil, Peaking, TRF4100AF
LX309	23289100	Coil, Peaking, TRF4100AF
LX400	23289109	Coil, Peaking, TRF41R0AF
LX401	23289109	Coil, Peaking, TRF41R0AF
LX402	23289109	Coil, Peaking, TRF41R0AF
LX403	23289109	Coil, Peaking, TRF41R0AF
LX404	23289109	Coil, Peaking, TRF41R0AF
LX405	23289109	Coil, Peaking, TRF41R0AF
LX406	23289109	Coil, Peaking, TRF41R0AF
LX407	23289109	Coil, Peaking, TRF41R0AF
LX408	23289109	Coil, Peaking, TRF41R0AF
LX409	23289109	Coil, Peaking, TRF41R0AF
LZ01	23238712	Coil, Peaking, TRF4150AJ
LZ02	23238716	Coil, Peaking, TRF4689AJ
LZ03	23238716	Coil, Peaking, TRF4689AJ
LZ04	23238709	Coil, Peaking, TRF4270AJ
LZ05	23238716	Coil, Peaking, TRF4689AJ
LZ06	23238709	Coil, Peaking, TRF4270AJ
LZ07	23238709	Coil, Peaking, TRF4270AJ
LZ08	23238707	Coil, Peaking, TRF4390AJ
LZ09	70131060	Filter, ZBF253D-00
LZ10	70131060	Filter, ZBF253D-00
LZ11	23289270	Coil, Peaking, TRF4270AF
T401	23224333	Transformer, Horiz. Drive, TLN1080
⚠ T461	23236513	Transformer, Flyback, TFB4137AR
T801	23211670	Line Filter, TRF3164G
⚠ T803	23217350	Transformer, Converter, TPW3367AR
T804	23211670	Line Filter, TRF3164G

SEMICONDUCTORS

Q200	A6330059	Transistor, 2SC2482(C)
Q201	A6534053	Transistor, 2SA1015-Y(TE
Q204	A6317440	Transistor, 2SC1815-Y
Q205	A6317440	Transistor, 2SC1815-Y
Q207	A6342206	Transistor, 2SC2878-A(TE
Q301	23905610	IC, LA7846N
Q302	B0384625	IC, TA8859CP
Q303	A6534053	Transistor, 2SA1015-Y(TE
Q304	A6317440	Transistor, 2SC1815-Y
Q360	A6002040	Transistor, RN1204
Q361	A6002040	Transistor, RN1204
Q362	A6002050	Transistor, RN1205
Q370	A6534053	Transistor, 2SA1015-Y(TE
Q402	A6325419	Transistor, 2SC2235-O(FA
Q404	A6371775	Transistor, 2SC5144
Q418	23314141	Transistor, 2SC3852
Q420	23314141	Transistor, 2SC3852
Q421	A6317440	Transistor, 2SC1815-Y
Q430	23314141	Transistor, 2SC3852
Q460	23314850	Transistor, 2SA1788-E
Q461	A6317440	Transistor, 2SC1815-Y
Q462	A6317440	Transistor, 2SC1815-Y
Q470	A6317440	Transistor, 2SC1815-Y
Q501	B0385990	IC, TA1259N
Q502	A6317440	Transistor, 2SC1815-Y
Q503	A6317440	Transistor, 2SC1815-Y
Q510	A6317440	Transistor, 2SC1815-Y
Q518	A6317440	Transistor, 2SC1815-Y

Location No.	Part No.	Description
Q611	A6534053	Transistor, 2SA1015-Y(TE
Q612	A6534053	Transistor, 2SA1015-Y(TE
Q640	B0376856	IC, TA8211AH
Q641	A6342206	Transistor, 2SC2878-A(TE
Q642	A6342206	Transistor, 2SC2878-A(TE
Q670	B0377341	IC, TA8256H(V31
Q671	A6342206	Transistor, 2SC2878-A(TE
Q672	A6342206	Transistor, 2SC2878-A(TE
Q673	A6342206	Transistor, 2SC2878-A(TE
Q688	A6002040	Transistor, RN1204
Q705	A6317440	Transistor, 2SC1815-Y
Q706	A6317440	Transistor, 2SC1815-Y
Q707	A6734590	Transistor, 2SC752(G)TM-Y
Q709	A6317440	Transistor, 2SC1815-Y
Q710	A6534053	Transistor, 2SA1015-Y(TE
Q711	23314911	Transistor, 2SB1569A
Q712	23314914	Transistor, 2SD2400A
Q719	A6319311	Transistor, 2SC1959-Y(TE
Q801	23905084	IC, STR-S6709
Q802	23314141	Transistor, 2SC3852
Q826	A8643108	Photo Coupler, TLP621(GR-LF
Q830	23314141	Transistor, 2SC3852
Q831	23314141	Transistor, 2SC3852
Q840	23318299	IC, L78MR05
Q901	A6368700	Transistor, 2SC4544
Q902	A6317440	Transistor, 2SC1815-Y
Q903	A6368700	Transistor, 2SC4544
Q904	A6317440	Transistor, 2SC1815-Y
Q905	A6368700	Transistor, 2SC4544
Q906	A6317440	Transistor, 2SC1815-Y
Q907	A6509154	Transistor, 2SA562TM-Y(T)
Q908	A6321265	Transistor, 2SC2120-Y(TE)
Q910	A6317440	Transistor, 2SC1815-Y
Q911	A6317440	Transistor, 2SC1815-Y
Q912	A6534053	Transistor, 2SA1015-Y(TE
Q913	A6534053	Transistor, 2SA1015-Y(TE
Q914	A6317440	Transistor, 2SC1815-Y
Q4321	A6002040	Transistor, RN1204
Q4420	23316816	IC, LA7860
Q4421	A6002040	Transistor, RN1204
Q4423	A6325419	Transistor, 2SC2235-O(FA
QA01	23906011	IC, TMP87CS38N3459
QA02	23904666	IC, NM24C08EN
QA04	A6002040	Transistor, RN1204
QA05	A6734590	Transistor, 2SC752(G)TM-Y
QB01	A6317440	Transistor, 2SC1815-Y
QB03	A6002050	Transistor, RN1205
QB30	A6317440	Transistor, 2SC1815-Y
QD01	B0413738	IC, TC9337F-024(
QD20	A6030620	IC, TC7S04F
QD30	B0385643	IC, TA1216AN
QF01	23905948	IC, SDA5273SC134
QF03	A6317440	Transistor, 2SC1815-Y
QF04	A6734590	Transistor, 2SC752(G)TM-Y
QQ01	B0385755	IC, TA1229N
QQ02	B0383881	IC, TA8772AN
QQ03	23314794	Transistor, 2PC1815Y
QQ04	23314794	Transistor, 2PC1815Y
QR21	23904807	IC, MC14577CP
QR22	23905603	IC, TDA8443B
QR23	A6534053	Transistor, 2SA1015-Y(TE
QR24	A6534053	Transistor, 2SA1015-Y(TE
QR25	23904807	IC, MC14577CP
QS01	A6342206	Transistor, 2SC2878-A(TE

Location No.	Part No.	Description
QS02	A6342206	Transistor, 2SC2878-A(TE
QS03	A6342206	Transistor, 2SC2878-A(TE
QS04	A6342206	Transistor, 2SC2878-A(TE
QS05	A6342206	Transistor, 2SC2878-A(TE
QS06	A6342206	Transistor, 2SC2878-A(TE
QS07	A6010040	Transistor, RN2004
QS08	A6342206	Transistor, 2SC2878-A(TE
QS09	A6342206	Transistor, 2SC2878-A(TE
QV01	B0385650	IC, TA1218N
QV02	A6317440	Transistor, 2SC1815-Y
QV03	A6317440	Transistor, 2SC1815-Y
QV04	A6317440	Transistor, 2SC1815-Y
QV05	A6534053	Transistor, 2SA1015-Y(TE
QV06	A6534053	Transistor, 2SA1015-Y(TE
QV07	A6342206	Transistor, 2SC2878-A(TE
QV08	A6317440	Transistor, 2SC1815-Y
QV09	A6317440	Transistor, 2SC1815-Y
QV10	A6317440	Transistor, 2SC1815-Y
QV11	A6534053	Transistor, 2SA1015-Y(TE
QV12	A6317440	Transistor, 2SC1815-Y
QV14	A6317440	Transistor, 2SC1815-Y
QV80	A6534053	Transistor, 2SA1015-Y(TE
QX30	23319052	IC, MB40978PFQ
QX101	23314204	Transistor, 2SC2412K,Q
QX102	70128490	IC, MM1031XMR
QX103	23314345	Transistor, IMZ1
QX104	23314204	Transistor, 2SC2412K,Q
QX105	A6030670	IC, TC7S66F
QX106	23905190	IC, TLC5510INS
QX108	23314204	Transistor, 2SC2412K,Q
QX109	23314344	Transistor, IMX1
QX110	A6030670	IC, TC7S66F
QX111	23314204	Transistor, 2SC2412K,Q
QX112	A6030670	IC, TC7S66F
QX114	23905190	IC, TLC5510INS
QX116	23314204	Transistor, 2SC2412K,Q
QX117	23314344	Transistor, IMX1
QX118	A6030670	IC, TC7S66F
QX119	23314204	Transistor, 2SC2412K,Q
QX120	A6030670	IC, TC7S66F
QX201	A6361770	Transistor, 2SC3437-Y
QX203	23905013	IC, TLC2932IPW
QX204	B0370000	IC, TA78L05F
QX205	23905013	IC, TLC2932IPW
QX211	B0508717	IC, TC190G04AF-0
QX212	23904272	IC, M518221-30ZS
QX213	23904272	IC, M518221-30ZS
QX214	B0488966	IC, TC74AC74F
QX216	A6030640	IC, TC7S32F
QX302	23314204	Transistor, 2SC2412K,Q
QX303	23314204	Transistor, 2SC2412K,Q
QX304	23314204	Transistor, 2SC2412K,Q
QX305	23314204	Transistor, 2SC2412K,Q
QX306	23314204	Transistor, 2SC2412K,Q
QX307	23314204	Transistor, 2SC2412K,Q
QZ01	B0410688	IC, TC9090AN
QZ02	A6317440	Transistor, 2SC1815-Y
QZ03	A6317440	Transistor, 2SC1815-Y
QZ04	A6317440	Transistor, 2SC1815-Y
QZ06	A6317440	Transistor, 2SC1815-Y
D101	23316411	Diode, 1SS184
D201	23115599	Diode, 1N4148
D240	23316554	Diode, 1SS146
D301	23118479	Diode, BYD33J

Location No.	Part No.	Description
D302	23118479	Diode, BYD33J
D303	23316794	Diode, SC570A
D306	23115599	Diode, 1N4148
D312	23115599	Diode, 1N4148
D370	23316658	Diode, Zener, MTZJ3.6A
D371	23115599	Diode, 1N4148
D372	23115599	Diode, 1N4148
D404	A7680591	Diode, 5VUZ52
D406	23118479	Diode, BYD33J
D418	23316749	Diode, Zener, MTZJ30A
D419	23316716	Diode, Zener, MTZJ11B
D420	23316716	Diode, Zener, MTZJ11B
D421	23316680	Diode, Zener, MTZJ7.5A
D422	23316726	Diode, Zener, MTZJ15C
D431	23316678	Diode, Zener, MTZJ6.8B
D432	23316678	Diode, Zener, MTZJ6.8B
D436	23115599	Diode, 1N4148
D441	23316687	Diode, Zener, MTZJ9.1B
D460	23118479	Diode, BYD33J
D461	23316582	Diode, ERC20-06
D463	23115599	Diode, 1N4148
D464	23316718	Diode, Zener, MTZJ12A
D466	23316672	Diode, Zener, MTZJ5.6B
D467	23118479	Diode, BYD33J
D468	23316718	Diode, Zener, MTZJ12A
D474	23316719	Diode, Zener, MTZJ12B
D490	23115599	Diode, 1N4148
D491	A7568460	Diode, TVR-1B
D498	23316719	Diode, Zener, MTZJ12B
D499	23115599	Diode, 1N4148
D501	23115599	Diode, 1N4148
D502	23115599	Diode, 1N4148
D611	23115599	Diode, 1N4148
D612	23115599	Diode, 1N4148
D613	23115599	Diode, 1N4148
D614	23115599	Diode, 1N4148
D615	23115599	Diode, 1N4148
D617	23115599	Diode, 1N4148
D618	23115599	Diode, 1N4148
D619	23115599	Diode, 1N4148
D620	23115599	Diode, 1N4148
D621	23115599	Diode, 1N4148
D622	23115599	Diode, 1N4148
D640	23115599	Diode, 1N4148
D641	23115599	Diode, 1N4148
D642	23115599	Diode, 1N4148
D643	23115599	Diode, 1N4148
D670	23115599	Diode, 1N4148
D671	23115599	Diode, 1N4148
D674	23115599	Diode, 1N4148
D675	23115599	Diode, 1N4148
D683	23115599	Diode, 1N4148
D704	23115599	Diode, 1N4148
D705	23115599	Diode, 1N4148
D715	23115599	Diode, 1N4148
D721	23115599	Diode, 1N4148
D801	23316795	Diode, D6SB60L, F05
D803	23118479	Diode, BYD33J
D804	23316678	Diode, Zener, MTZJ6.8B
D805	23115599	Diode, 1N4148
D806	23118479	Diode, BYD33J
D808	23118479	Diode, BYD33J
D809	23316672	Diode, Zener, MTZJ5.6B
D810	23115599	Diode, 1N4148

Location No.	Part No.	Description
D811	23115599	Diode, 1N4148
D812	23118451	Diode, RU-4A
D815	23316725	Diode, Zener, MTZJ15B
D828	23115599	Diode, 1N4148
D883	23316406	Diode, FML-G16S
D885	23316184	Diode, FML-G12S
D891	23316184	Diode, FML-G12S
D892(U902A)	23316673	Diode, Zener, MTZJ5,6C
D892(U903A)	23316184	Diode, FML-G12S
D893	23316672	Diode, Zener, MTZJ5.6B
D896	23118479	Diode, BYD33J
D901	23115599	Diode, 1N4148
D903	23115599	Diode, 1N4148
D904	23115599	Diode, 1N4148
D905	23115599	Diode, 1N4148
D906	23115599	Diode, 1N4148
D907	23115599	Diode, 1N4148
D908	23115599	Diode, 1N4148
D909	23115599	Diode, 1N4148
D910	23115599	Diode, 1N4148
D911	23118479	Diode, BYD33J
D4301	23316726	Diode, Zener, MTZJ15C
DB01	23358505	LED, SLR56VC196F
DB02	23358503	LED, SCL003MC3FX
DB03	23358522	LED, SIR-56SB3F
DB30	23115599	Diode, 1N4148
DF01	23316654	Diode, Zener, MTZJ3.0A
DR01	23316719	Diode, Zener, MTZJ12B
DR02	23316719	Diode, Zener, MTZJ12B
DR03	23316719	Diode, Zener, MTZJ12B
DR04	23316719	Diode, Zener, MTZJ12B
DV01	23316687	Diode, Zener, MTZJ9.1B
DV02	23316687	Diode, Zener, MTZJ9.1B
DV03	23316687	Diode, Zener, MTZJ9.1B
DV04	23316687	Diode, Zener, MTZJ9.1B
DV05	23316687	Diode, Zener, MTZJ9.1B
DV06	23316687	Diode, Zener, MTZJ9.1B
DV07	23316687	Diode, Zener, MTZJ9.1B
DV09	23115599	Diode, 1N4148
DV10	23115599	Diode, 1N4148
DV11	23115599	Diode, 1N4148
DV12	23316687	Diode, Zener, MTZJ9.1B
DV80	23115599	Diode, 1N4148
DZ01	23316690	Diode, Zener, MTZJ10B

MISCELLANEOUS

B202	23470427	Frame, Terminal
⚠F470	23144502	Fuse, 1.0A
F470A	23165433	Holder, Fuse
F470B	23165433	Holder, Fuse
⚠F801	23144507	Fuse, 3.15A
F801A	23165433	Holder, Fuse
F802A	23165433	Holder, Fuse
G224	24366271	CF, 270 ohm
G311	24366332	CF, 3300 ohm
G333	23238702	Coil, Peaking, TRF4101AJ
G401	23103859	Coil (Ferrite Bead), TEM2011
G402	23103859	Coil (Ferrite Bead), TEM2011
G403	23103859	Coil (Ferrite Bead), TEM2011
G404	23103859	Coil (Ferrite Bead), TEM2011
G430	A7568460	Diode, TVR-1B
G510	23289470	Coil, Peaking, TRF4470AF
G516	24366101	CF, 100 ohm
G517	24366101	CF, 100 ohm

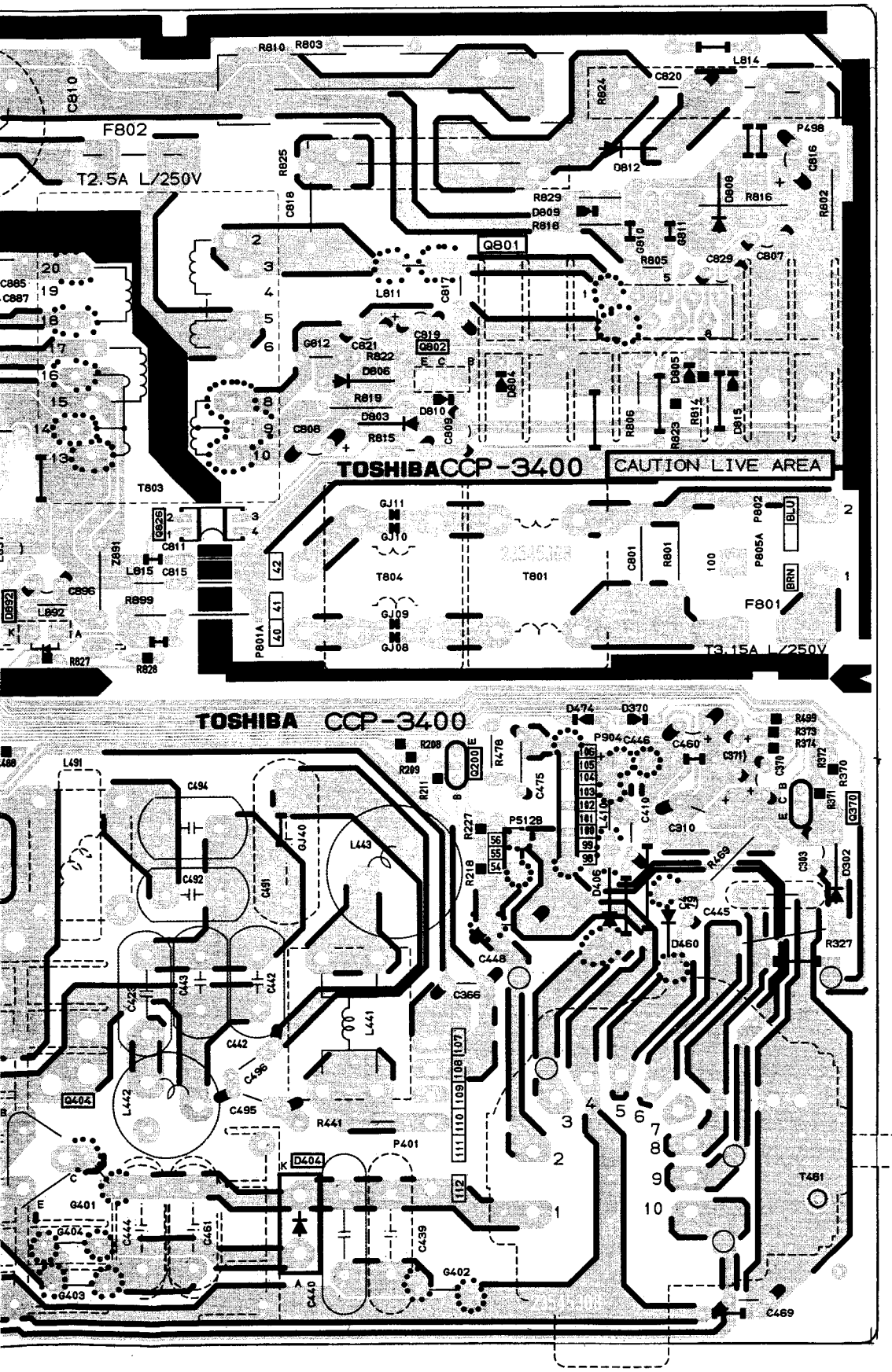
Location No.	Part No.	Description
G601	23238714	Coil, Peaking, TRF4100AJ
G602	23238714	Coil, Peaking, TRF4100AJ
G813	23103859	Coil (Ferrite Bead), TEM2011
GV05	23289109	Coil, Peaking, TRF41R0AF
GV06	23289109	Coil, Peaking, TRF41R0AF
GV07	23238562	Coil, Peaking, TRF4109AJ
GV08	23238562	Coil, Peaking, TRF4109AJ
GV80	24366681	CF, 680 ohm
GV81	24366681	CF, 680 ohm
H002	23148276	Module, MVGS49, IF FR MPX APRO
KB01	23904946	Remote Sensor, RPM-676CBR-S
P004	23161702	Terminal, 8P
P005	23161596	Terminal, 2P
P661	23363607	Headphone Jack, 3.5mm
⚠P801	23372014	Power Cord
PV03	23365546	Jack, 2C-2P
PV04	23363252	Pin Jack, Yellow
PV05	23365508	Jack, Phono
S601	23344367	Switch, Slide, 6C2P
⚠S801	23344395	Switch, Power
SA01	23145430	Switch, Push, 1C1P
SA02	23145430	Switch, Push, 1C1P
SA03	23145430	Switch, Push, 1C1P
SA04	23145430	Switch, Push, 1C1P
SA06	23145430	Switch, Push, 1C1P
⚠V901A	23902891	Socket, CRT, 10P
W661	23351116	Speaker, SPK-1382, 60x120mm, 8 ohm
W662	23351116	Speaker, SPK-1382, 60x120mm, 8 ohm
W665	23351080	Speaker, SPK-1352, 100x100mm, 6 ohm
X401	23153721	Ceramic Resonator, 503kHz, TCR1023
X501	23153961	Crystal, 3.58MHz
X503	23153979	Crystal, 4.43MHz
XA01	23153325	Ceramic Resonator, 8.00M, TCR1056
XF01	23153421	Crystal, 20.48MHz
XQ01	23153969	Crystal, 4MHz
Z201	23107519	Ceramic Video Trap, 4.43MHz, TCF1066
⚠Z420	23144539	Protector, PRF20005491, 125V, 2A
⚠Z430	23144536	Protector, PRF10005491, 125V, 1A
⚠Z801	23904998	IC, HIC1016
⚠Z889	23144543	Protector, PRF50005491, 125V, 5A
⚠Z890	23144543	Protector, PRF50005491, 125V, 5A
⚠Z891	23144543	Protector, PRF50005491, 125V, 5A
⚠Z896	23144539	Protector, PRF20005491, 125V, 2A
⚠Z897	23144450	Protector, PRF2000, 125V, 2A
ZD01	23153671	Ceramic Resonator, TCR1034
ZX101	23103823	Filter, TEM2027D
ZX102	23103823	Filter, TEM2027D
ZX103	23103823	Filter, TEM2027D
ZX104	23103823	Filter, TEM2027D
ZX201	23103823	Filter, TEM2027D

Location No.	Part No.	Description
ZX202	23103823	Filter, TEM2027D
ZX203	23103823	Filter, TEM2027D
ZX801	23303181	Filter, TEM1012N
ZX802	23303181	Filter, TEM1012N
PC BOARD ASSEMBLIES		
* U101A	23706499	Dolby Board, PB7205X
* U902A	23706501	Signal Board, PB7208B-1
* U902B	23706509	A-PRO Board, PB7208B-2
* U903A	23706502	Power Board, PB7209X-1
* U903B	23706510	Def Board, PB7209X-2
* U904	23706504	Back T Board, PB7211X
* U905	23706505	CRT Drive Board, PB7212X
* U906A	23706600	SECAM Board, PB7213X-1
* U906B	23706601	Comb Board, PB7213X-2
* U906C	23706508	YUV S/W Board, PB7213X-3
* U906D	23706507	E/W Board, PB7213X-4
* U907	23706855	Text Board, PB6513Y
* U908	23709241	UP-Converter Board, PB7366X
* U909	23706794	Choke Board, PB7348X
PICTURE TUBE		
⚠ V901	23312716	Picture Tube, A66EAK552X54
TUNER		
H001	23321227	Tuner, EGA12LX1
ACCESSORIES		
K902	23306217	Remote Hand Unit, CT-9901
Y101	23562411	Owner's Manual, English, 2878DG
Y102	23562412	Owner's Manual, French, 2878DG
Y103	23562634	Owner's Manual, German, 2878DG
Y104	23562635	Owner's Manual, Italian, 2878DG

Location No.	Part No.	Description

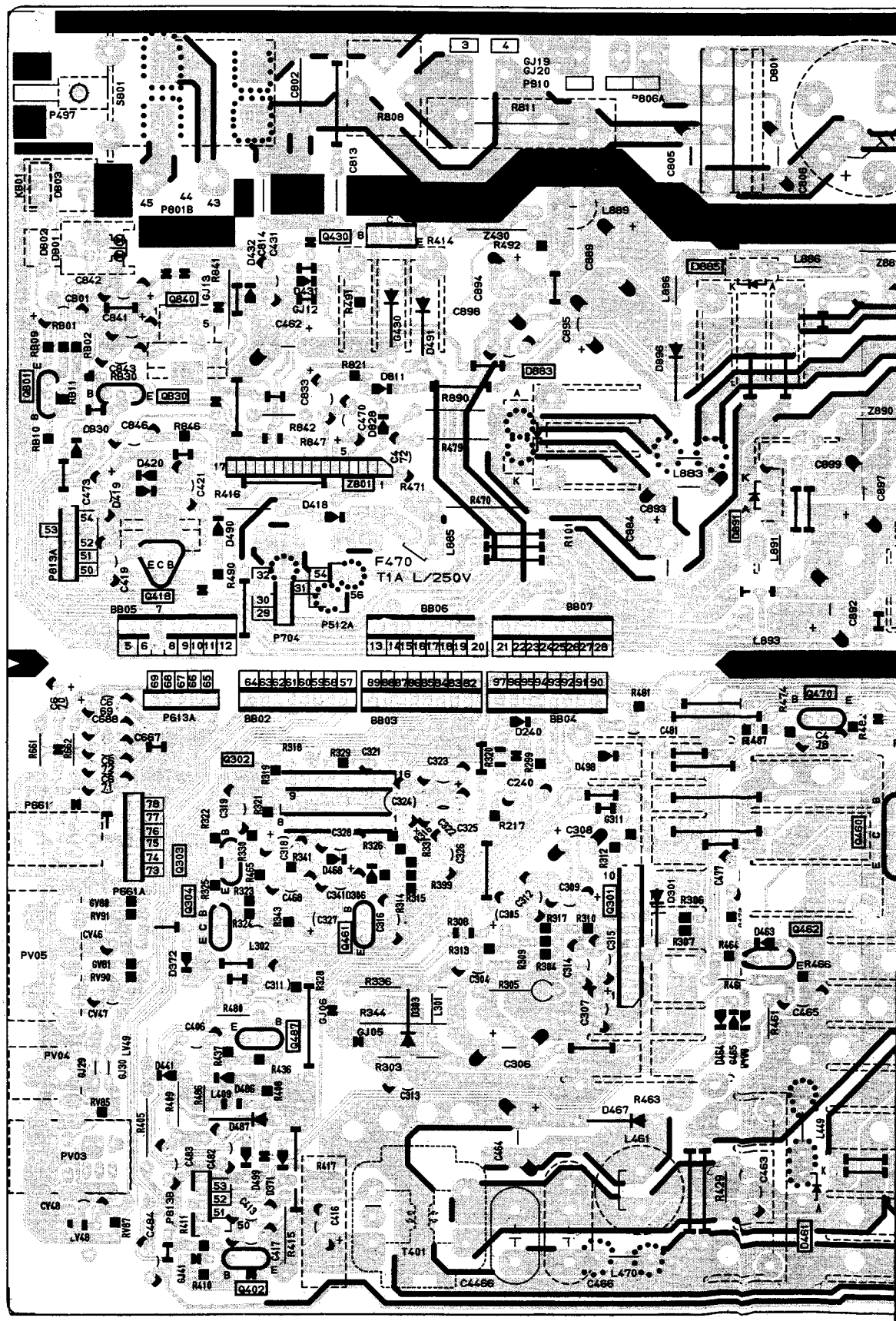
I/DEF BOARD PB7209X-2

OIL) SIDE



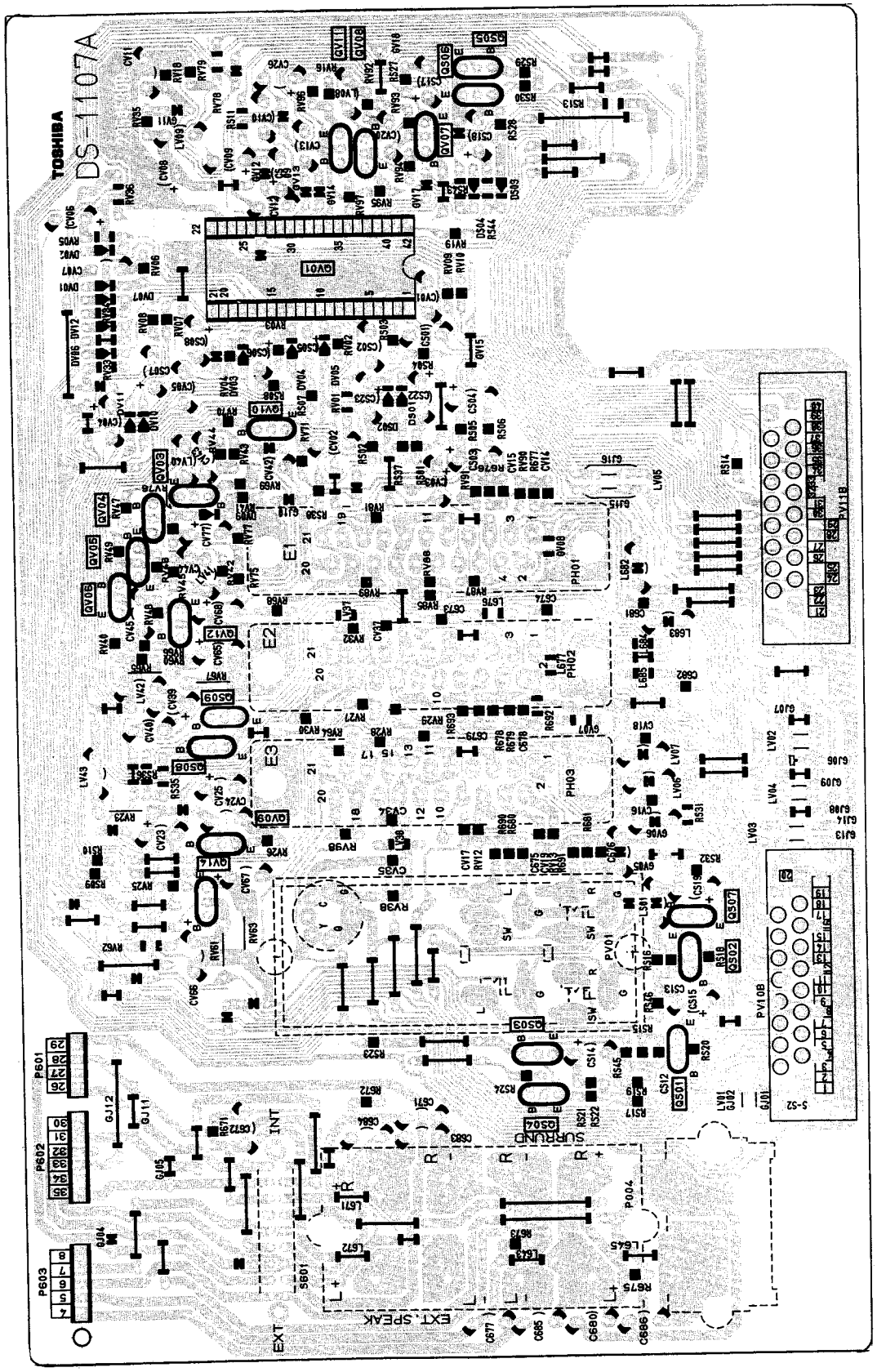
POWER BOARD PB7209X-

BOTTOM (F



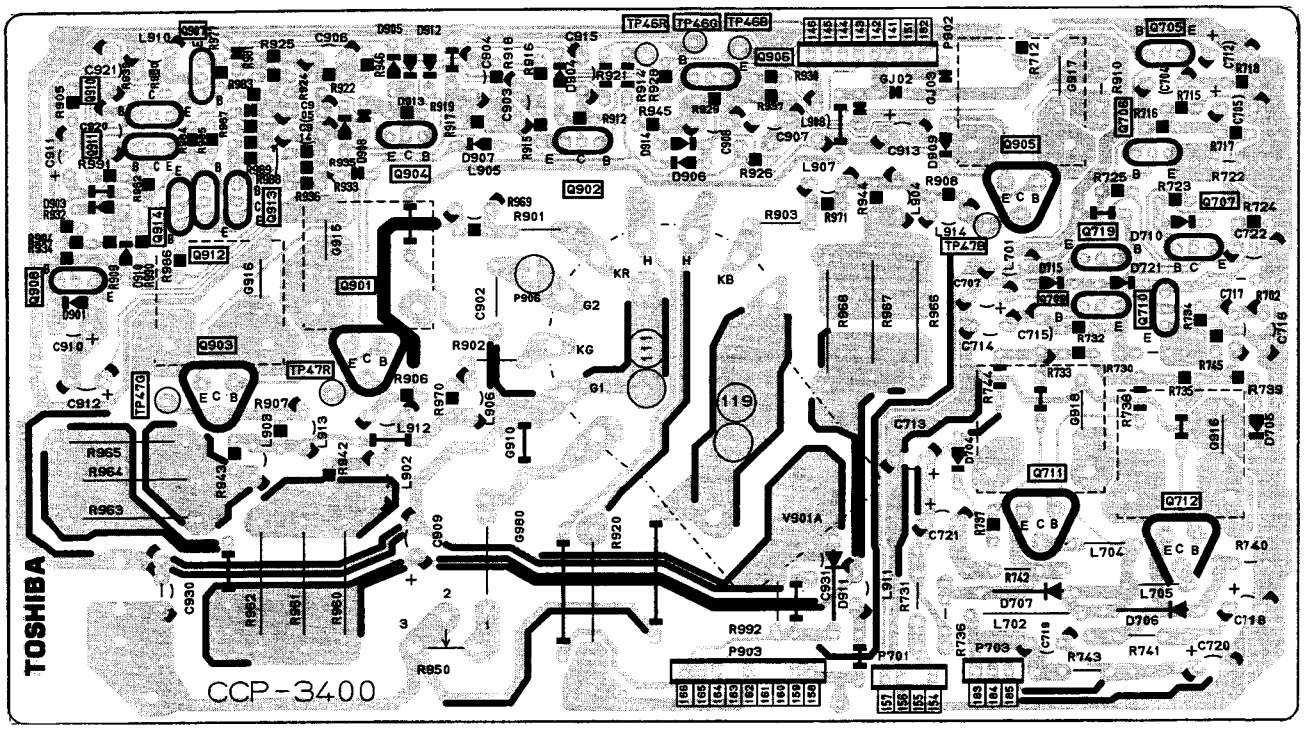
BACK TERMINAL/AV BOARD PB7211X

BOTTOM (FOIL) SIDE



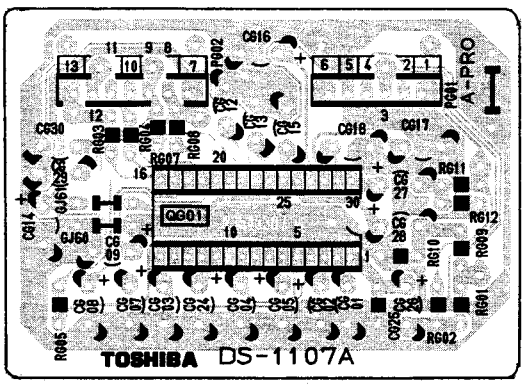
CRT DRIVE/DSM BOARD PB7212X

BOTTOM (FOIL) SIDE



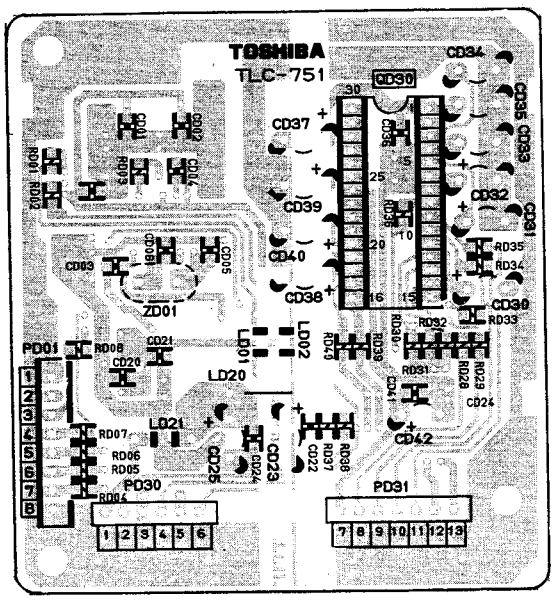
A-PRO BOARD PB7208B-2

BOTTOM (FOIL) SIDE



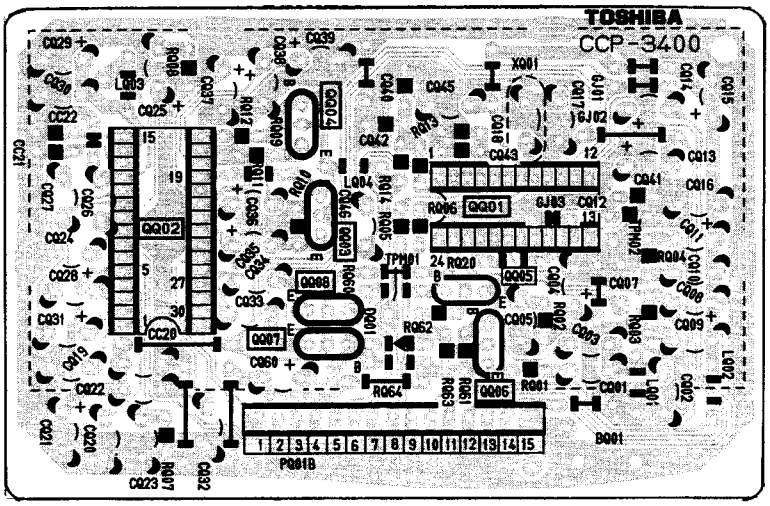
DOLBY BOARD PB7205X

BOTTOM (FOIL) SIDE



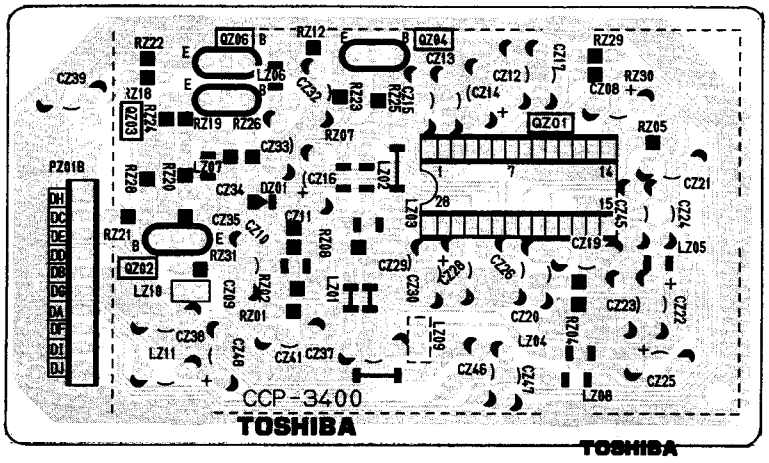
SECAM BOARD PB7213X-1

BOTTOM (FOIL) SIDE



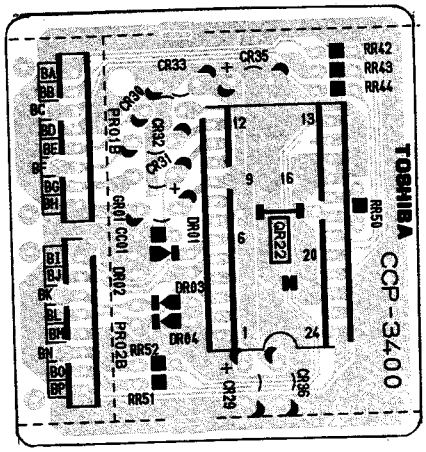
COMB BOARD PB7213X-2

BOTTOM (FOIL) SIDE



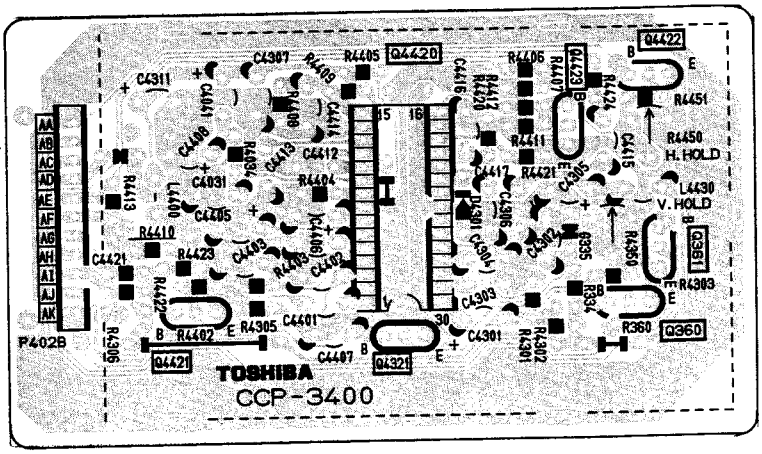
YUV S/W BOARD PB7213X-3

BOTTOM (FOIL) SIDE



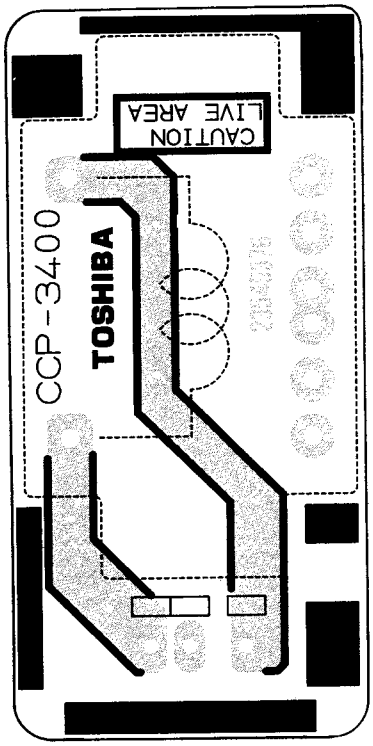
PAL/100Hz BOARD PB7213X-4

BOTTOM (FOIL) SIDE



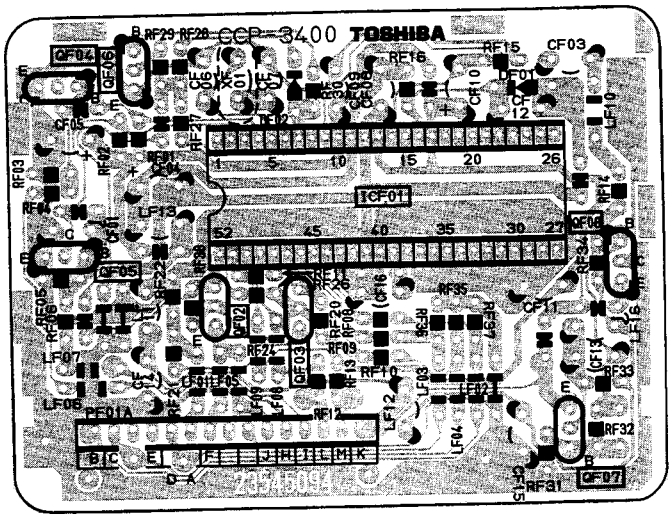
CHOKE BOARD PB7348X

BOTTOM (FOIL) SIDE



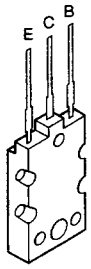
TEXT BOARD PB6513X

BOTTOM (FOIL) SIDE

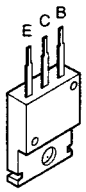


TERMINAL VIEW OF TRANSISTORS

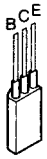
① 2SD2253



② 2SC3852
2SD1763A
2SC1569
2SC4544
2SA1788
2SA1306
2SA1186A

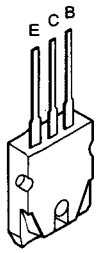


③ 2SC752GTM
2SC2482
2SC2655
2SC4721P

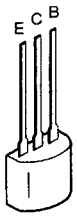


④ 2SC752
2SA562TM
2SA1015
2SC1815
2SC2878
2SC1740S
2SC2120
2SA9335

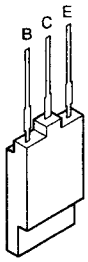
⑤ 2SA1788



⑥ RN2203
RN2201
RN2004
RN1203
RN1204
RN2204
RN1205



⑦ 2SD1554



MEMO

MEMO

SCHEMATIC DIAGRAM MODEL: 2878DG (1/4)

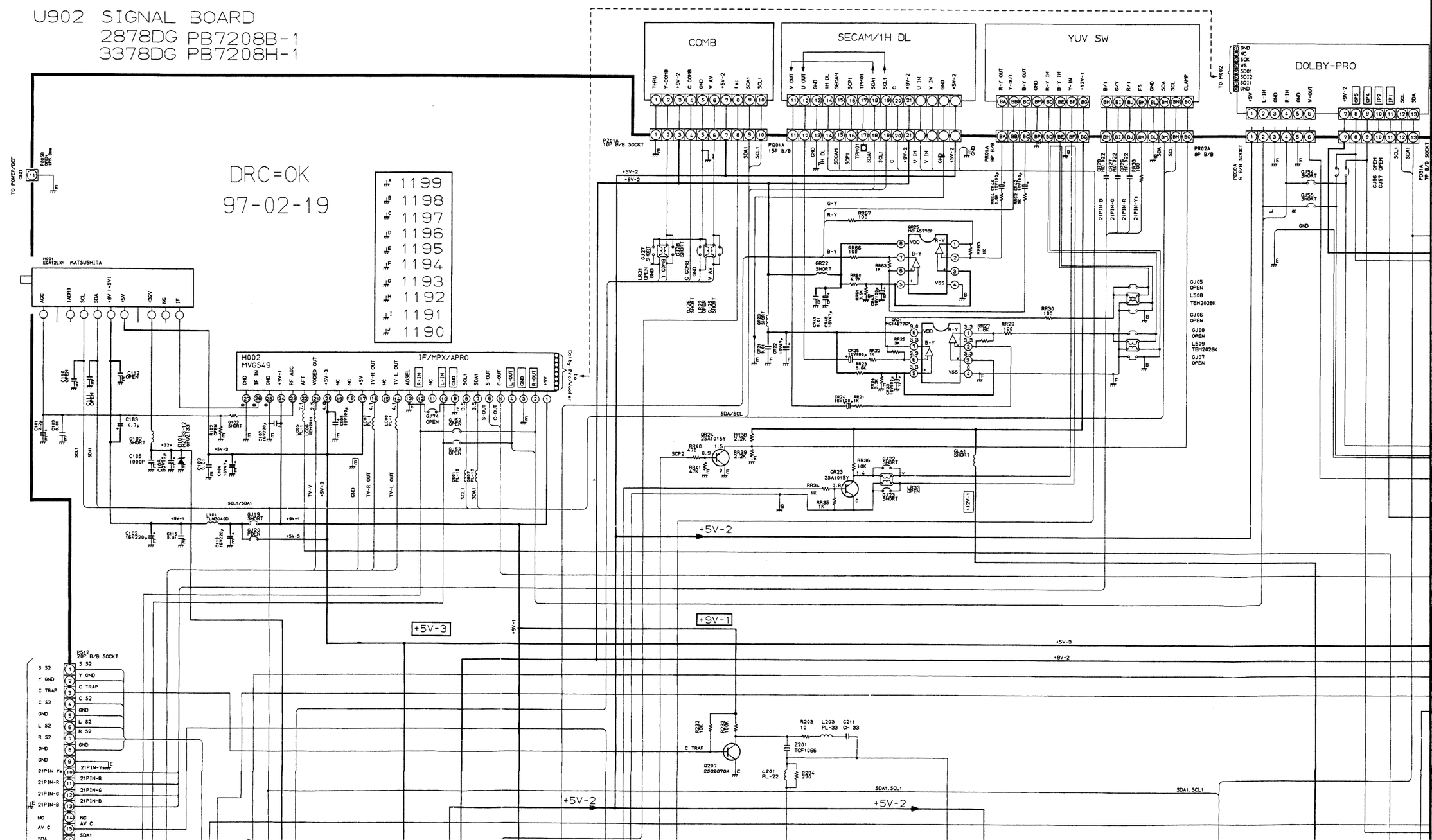
CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 2. Do not degrade the safety of the receiver through improper servicing.

OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

NOTES:

1. D.C. resistance value of a principal transformer is sh
   gram. These are measured for separated from the circ
2. The circuits are subject to change without notice.
3. ● : Solder links.



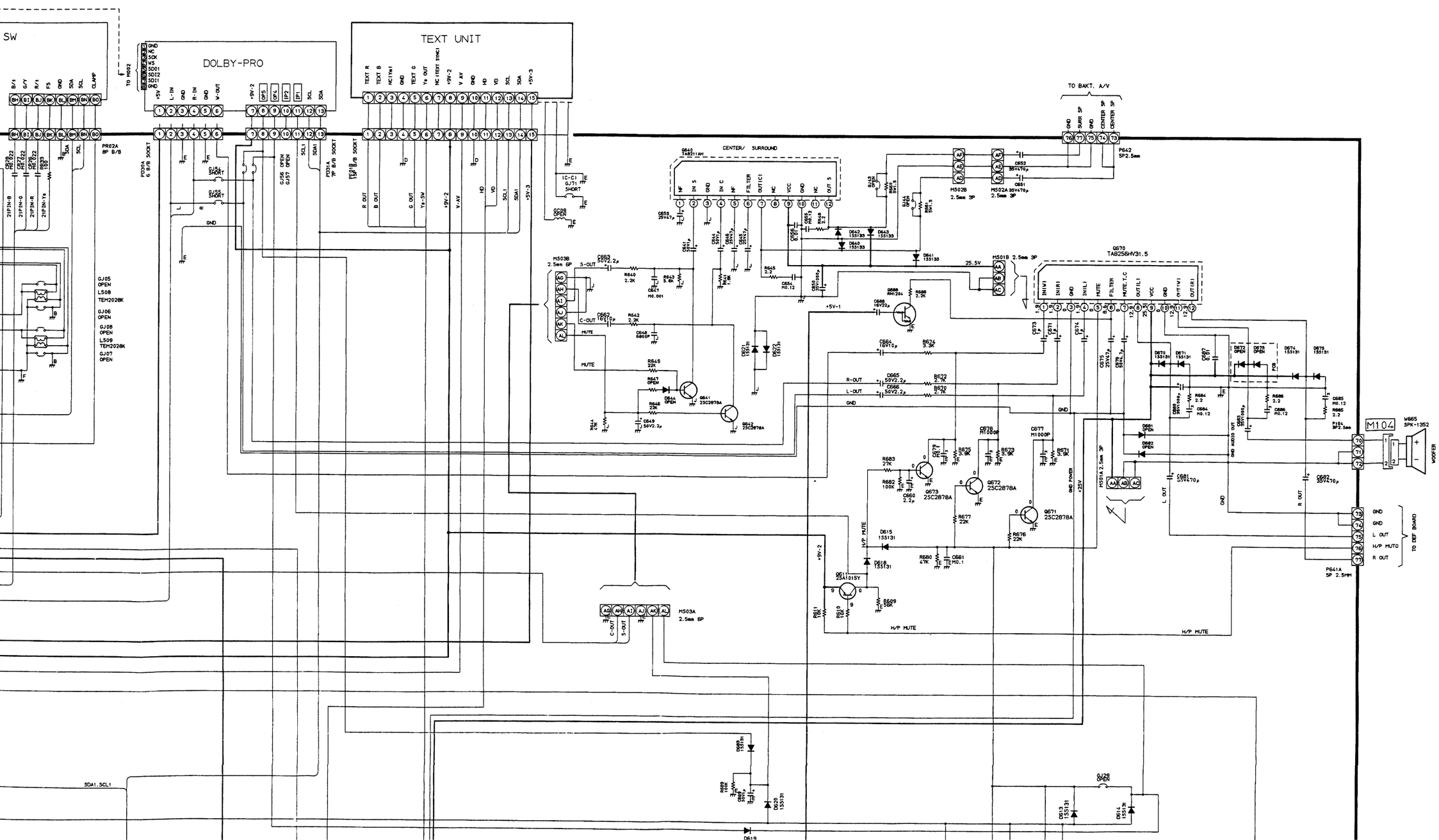
NOTES:

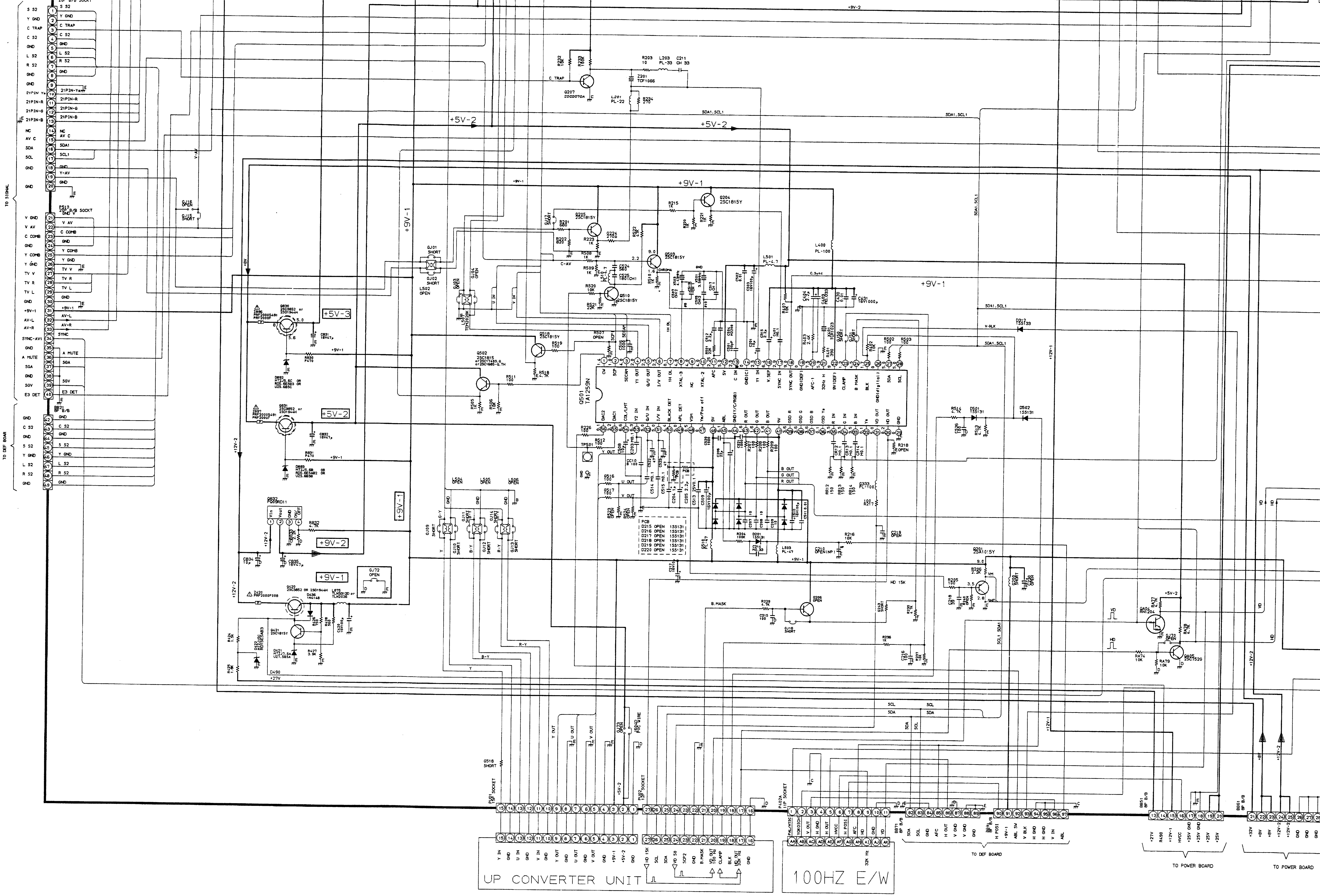
1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ● : Solder links.

EXPRESSION

VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in μF and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in μH, and the values less than 1 in H.




TO SIGNAL
TO DEF BOAR
S S2
Y GND
C TRAP
C S2
GND
L S2
R S2
21PIN Ys
21PIN-R
21PIN-G
21PIN-B
NC
AV C
SDA
SCL
Y-AV
SDA1
SCL1
P513
20P B/B SOCKT
V GND
V AV
C COMB
Y COMB
TV V
TV R
TV L
+9V-1
AV-L
AV-R
SYNC-AV1
SYNC
A MUTE
SGA
SGV
E3 DET
BB21
8P B/B
GJ16
OPEN
GJ15
SHORT
V-AV
+5V-2
+9V-1
+9V-2
+5V-3
+12V-2
+8V
Q830
2SC3852 or
2SD1944H
Z896
PRF20005491
PRF2000F
C831
16V47μ
R830
P470
D892
MTZJ5.6C OR
RD5.6ESB3 OR
UZ5.6BSC
Q831
2SC3852 or
2SD1944H
Z897
PRF20005491
PRF2000F
C832
16V47μ
R831
P470
D893
MTZJ5.6B OR
RD5.6ESAB2 OR
UZ5.6BSB
Q832
PQ09RD11
Vin
Vout
GND
ON/OFF
R832
4.7K
R833
2.2K
C834
10μ
C835
16V47μ
GJ72
OPEN
Q420
2SC3852 OR 2SD1944H
Z420
PRF2000F006
D436
1N4148
L875
TLN3312D or
TLN2026
R426
750
R428
560
C420
16V100μ
Q421
2SC1815Y
D421
MTZJ7.5A
UZ7.5BSA
R427
3.9K
R424
1.5K
R425
1.8K
D422
MTZJ15C
RD15ESAB3
D490
+27V
GJ01
SHORT
GJ02
SHORT
L502
OPEN
GJ03
OPEN
GJ04
OPEN
L507
TEM2028K
U IN
V IN
R232
10K
R233
100K
C TRAP
Q207
2SC2070A
R203
10
L203
PL-33
C211
CH 33
Z201
TCF1066
L201
PL-22
R234
270
SDA1.SCL1
Q204
2SC1815Y
R215
1K
R220
1K
R221
1K
Q205
2SC1815Y
GJ17
SHORT
R201
680
R202
820
R223
1K
G224
270Ω
R522
47K
Q503
2SC1815Y
R508
1K
R509
1K
C-AV
L510
PL-4.7
C524
560
C525
180 CH1
CHROMA
R510
1K
Q510
2SC1815Y
R520
10K
R521
22K
L400
PL-100
L501
PL-4.7
C.Sync
C502
0.01
C503
16V100μ
C404
2.2μ
C403
M0.033
C430
0.01
C431
16V1000μ
X503
4.43MHz
X501
3.58MHz
C507
CH12
C519
CH1
C505
CH12
C517
CH1
R407
10K
R403
2.4K
R401
390
X401
TCR1023
GJ50
SHORT
GJ51
SHORT
R402
10K
R502
100
R503
100
Q518
2SC1815Y
R507
OPEN
R519
100
C516
1000
R518
4.7K
Q502
2SC1815
or 2SC1740S.Q
or 2SC1685-Q.TH
R511
100
R505
1K
R506
10K
R501
22K
C512
2.2μ
C504
M2200
C501
100pF
C201
10μ
C315
2.2μ
C401
M0.1
Q501
TA1259N
CW
SCP
SECAM
Y1 OUT
Q/U OUT
I/V OUT
1H DL
XTAL-3
NC
XTAL-2
APC
5V
C IN
GND(C)
Y1 IN
V.SEP
SYNC IN
SYNC OUT
GND(DEF)
AFC-1
32Hz H
9V(DEF)
CLAMP
B MASK
BLK
GND(digital)
SDA
SCL
DAC2
DAC1
COL/LMT
Y2 IN
Q/U IN
I/V IN
BLACK DET
APL DET
VSM
Ym/Pow off
9V
ABL
GND(Y/C/RGB)
R OUT
G OUT
B OUT
OSD R
OSD G
OSD B
OSD Ys
R IN
G IN
B IN
Ys
VD OUT
HD OUT
GND
R226
100
R512
100
TP501
Y OUT
C508
10μ
C203
M0.1
CC10
B 100
C522
47
C523
47
G516
100
U OUT
G517
100
V OUT
C514
M0.1
C515
M0.1
C204
1μ
C205
2.2μ
C513
25V0.1
C509
16V100μ
R523
OPEN
R524
OPEN
PCB
D215 OPEN 1SS131
D216 OPEN 1SS131
D217 OPEN 1SS131
D218 OPEN 1SS131
D219 OPEN 1SS131
D220 OPEN 1SS131
C520
1000
C206
22μ
C521
1000
R207
100
R208
100
R209
100
C207
10
C208
10
C209
10
C510
16V100μ
C511 0.01
R204
100K
D201
1SS131
C214
M0.33
G510
PL-47
L503
PL-47
C212
16V10
R216
10K
C210
OPEN(NP)
C219
OPEN
CR12
M0.1
CR13
M0.1
CR14
M0.1
RR12
150
RR13
150
RR14
150
G333
PL-100
R217
100
R218
OPEN
R514
4.7K
D501
1SS131
D502
1SS131
C526
100
R513
4.7K
D312
1SS133
V-BLK
+12V-1
L504
OPEN
L505
OPEN
L506
OPEN
GJ09
SHORT
GJ10
SHORT
GJ11
SHORT
GJ12
SHORT
GJ14
SHORT
GJ13
SHORT
G-Y
B-Y
R-Y
Y
B.MASK
R229
4.7K
C215
100
Q206
OPEN
GJ18
SHORT
HD 15K
Q201
2SA1015Y
R206
2.2K
R205
100
C218
39
R240
OPEN
G200
SHORT
C230
OPEN
G243
SHORT
R235
4.7K
R236
1K
C216
100
R237
10K
SCL1 SDA1
VD
HD
QA04
RN1204
RA77
4.7K
RA78
4.7K
GJ70
OPEN
QA05
2SC752G
RA74
10K
RA79
10K
G518
SHORT
GJ73
OPEN
J604D
PVC WIRE
PU01
15P SOCKET
PU02
12P SOCKET
Y IN
U IN
V IN
Y OUT
U OUT
V OUT
+9V-1
+5V-2
HD 15K
SCL
SDA
VD 50
SCP2
B.MASK
VD OUT 100 Hz
CLAMP
BLK
HD OUT 32K Hz
UP CONVERTER UNIT
P402A
11P SOCKET
PAL/NTSC
YOKOICH
V OUT
H GND
H OUT
HVCC
H POSI
AFC
HD
VD
32K Hz
100HZ E/W
BB71
8P B/B
H OUT
V GND
BB81
8P B/B
H POSI
ABL SW
V BLK
H GND
V IN
ABL
TO DEF BOARD
BB51
8P B/B
+27V
R490
+12V-1
HVCC
+25V GND
+25V
BB61
8P B/B
+32V
+8V
+12V-2
TO POWER BOARD
TO POWER BOARD

NOTE
The marking (OPEN) means that there are on component on the PCB though there are the marking of part No. on the PCB.Its means open circuited.

TO DEF/POWER
CRT-D BOARD
TO POWER BOARD
TO POWER BOARD
TO DEF BOARD
POWER
RMT OUT
LED
SCAN-AVI
SCART MUTE
MUTE
DEF
SDA1.SCL1
+12V-2
+9V-1
+5V-1

SCHEMATIC DIAGRAM **MODEL: 2878DG** **(2/4)**

U903A POWER BOARD
2878DG PB7209X-1
3378DG PB7209Y-1

TO SIGNAL BOARD

RMT IN · RMT OUT · LED · RESET · POWER · +5V-1 · +5V-1 · GND
+27V · RL49 · +12V-1 · Hi-Vcc · +25V GND · +25V GND · +25V · +25V
+32V · +8V · +8V · +12V-2 · +12V-2 · GND · GND · GND

± 1199 DRC=OK
± 1198 97-02-17

STANDBY (RED)
ON TIMER (GREEN)
DB01 SLR-56VC196F
DB02 SCL003URC3FX
RB02 270
RB01 270
RB11 10K
RB10 100
QB01 2SC1815Y or 2SC1740S,Q
+5V-1
ON TIMER
STANDBY (RED)
ON TIMER (GREEN)
RMT OUT CB03
RMT IN KB01
DB03 SIR-563B3F
RMT OUT
KB01 RPH-676CBR-5
RMT IN
GND
RB29 4.7
CB01 16V47μF

J613 SHORT
+12-1
D491 TVR-1B
D439 TVR-1B HVCC
C462 35V2200
D490 1N4148
R490 100
Q435 2SC3852 OR 2SD1624A
B614 2R22
Z430 PRF10005491
C431 0.01
R491 100
D431 MTZJ6.8B
D432 MTZJ6.8B
R492 2.7K

+25V · +25V · +25V · +12V-2 · +8V · +5V-1

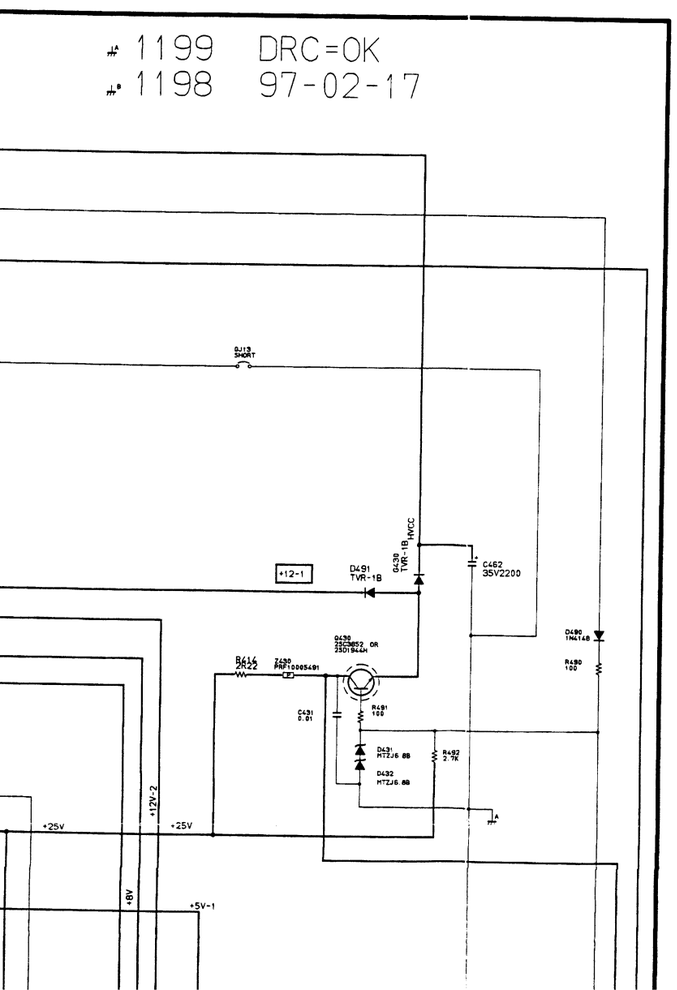
Q840 L78MR05
27.1 · 5.0 · 3.8 · 5.0
CB41 560μF
CB42 10μF
CB43 0.1μF

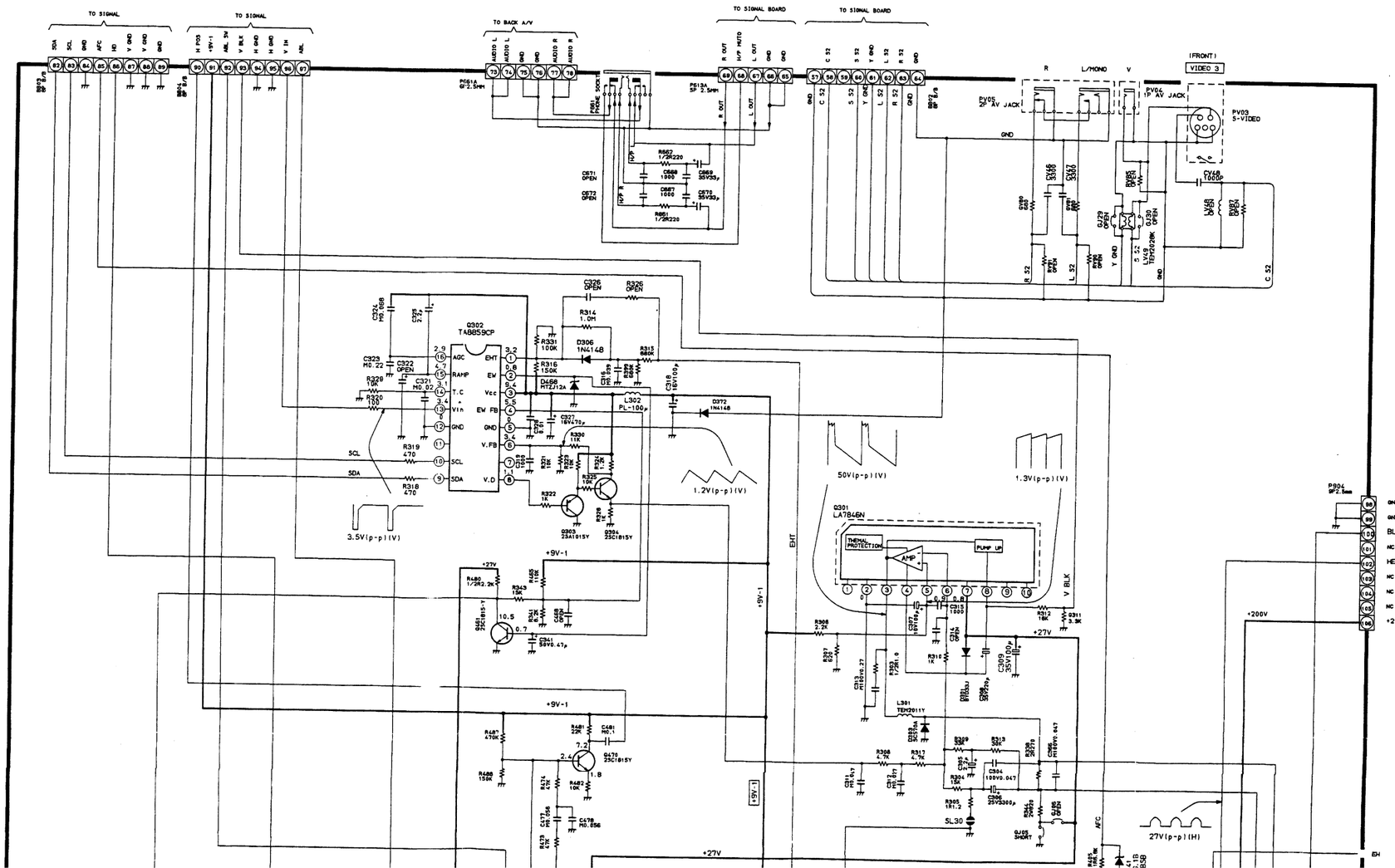
⚠ PB01 POWER CORD
PB02 295.10mPOWER
⚠ FB01 T3.15A L/250V
TB01 TNF3164G
TB04 TNF3164G OR TNF3164
SJ08 OPEN
SJ09 OPEN

U903B DEF BOARD
2878DG PB7209X-2
3378DG PB7209Y-2

DRC=OK
97-02-17

1199 DRC=OK
1198 97-02-17





U909 CHORK PB7348X

CAUTION LIVE AREA

KB01 RPH-676CBR-5

RMT IN

GND

P802 2P5.0mmPOWER

P801 POWER CORD

F801 T3.15A L/250V

TR01 TRF3164G

TR04 TRF3164 OR TRF3164

GJ08 OPEN GJ09 OPEN

GJ10 OPEN GJ11 OPEN

P805A OPEN

P805B 5mm 3P

P821

P821 POWER SW

H805 TO SIGNAL TUNER GND

L901 P910 2P2.0mmD/O

R808 RA RZ92P2E180M3 NB RZ99P2E180MS

C802 AC250V0.22

GJ15 OPEN GJ20 OPEN

C813 AC400V2200

C816 AC250V2200

R811 1W270

L801 TPW2008AZ P806B 3P 5mm P806A 3P 5mm

D801 D6SB60 RBV606

C805 470P/AC250V

C810 330P/1KV

F802 T2.5A L/250V

Q801 STR-S6709

START UP O V P PRE REG THERMAL OSC LATCH PROPORTIONAL DRIVE REF

C GND B DIN DOUT OCP F/B INH Vcc

R803 1R68K

R815 1/2R1K

R826 1R8.2M

R822 P22

C846 M0.1

R846 560

D811 1N4148

D824 1N4148

R821 P100

C833 10P

Q826 TLP621(GR-LF2) OR TLP721(FIR-LF2)

R827 P680

C868 500V470

D823 BYD33J

D818 1N4148

Q823 2SC3852

C821 500V470

D805 BYD33J

D812 1N4148

R822 1/2R10K

R814 P1.2K

R873 P2.7K

C877 470P

D815 RD15ESB2 UZ1585B

D804 RD6.8ES2 UZ6.8B5B

D869 RD6.8ES4B2 UZ6.8B5B

R818 1R5.72

R823 1R72

C818 220011.25KVH1

L811 TEH2011

C817 470N/12KV1

R824 1W100

C822 2KV81 680

D812 RU4A

L814 TRF92530

R805 1/2R2.35

C811 SHORT

R816 2R1.5

R825 1R50

C816 50V220µ

R826 1/2R3.9K

D811 SHORT

D805 BYD33J

R803 1/2R2.7

C811 OPEN AC400V2200

C815 OPEN AC250V470

L815 OPEN TEH2004

R899 1R8.2M

#1-P2(GND)

600V 0 500V

#2-P3

2V 0.5V 0.8V GND

+25V +12V-2 +8V +5V-1 +12V-1 +125V

Q840 L78HR05

C841 330µ

C842 0.1µ

R843 1/2R1K

R844 1/2R12

R847 2.7K

Q830 2SC1815Y or 2SC17403

DB30 155131 or 1SS120-7

C867 470(50V)

D896 BYD33J

C865 470(50V)

C864 35V1000µ

C869 35V1000µ

L880 TLN3320 or TLN3520

D885 PKL-0125

Z890 PRF50005491 or PRF5000F058

C888 22NR(12KV)

D883 PKL-0163

C886 500V470

D892 RU4Z-125 RU4Z

L892 TEH2011

C884 16V3300µ

L883 TLN2026 or TLN3120

C892 25V2200µ

Z891 PRF50005491 or PRF5000F058

C889 500V470

L891 TEH2011

D891 RU4Z-125 RU4Z

C887 16V3300µ

L887 TLN2026 or TLN3120

SHORT

Q418 2SC3852

R416 1/2R56K

D418 MTZJ30A

D419 MTZJ11B

D420 MTZJ11B

C431 0.01

C418 R100.1

R401 100

D431 MTZJ6.8B

D432 MTZJ6.8B

R402 2.7K

R1101 1W22K

R1102 1W22K

R1103 1W22K

R479 1/2R68

R470 2R0.56

R471 1/2R270

L885 TLN3299D TLN3155D

SL80

F470 T1.0A L/250V LITTEL/SOC

R472 R50.47

P813A SP 2.5mm

P813B SP 2.5mm

P813 SP 2.5mm

+27 H OUT DB71 GND

GJ41 OPEN

Z801 HIC1016

+B OCP Error Amp Iz OCP Filter GND-1 ABL Error Amp ON/Stand-by NC SOUND Vcc H.Vcc SW GATE +5V Protecter GND-2

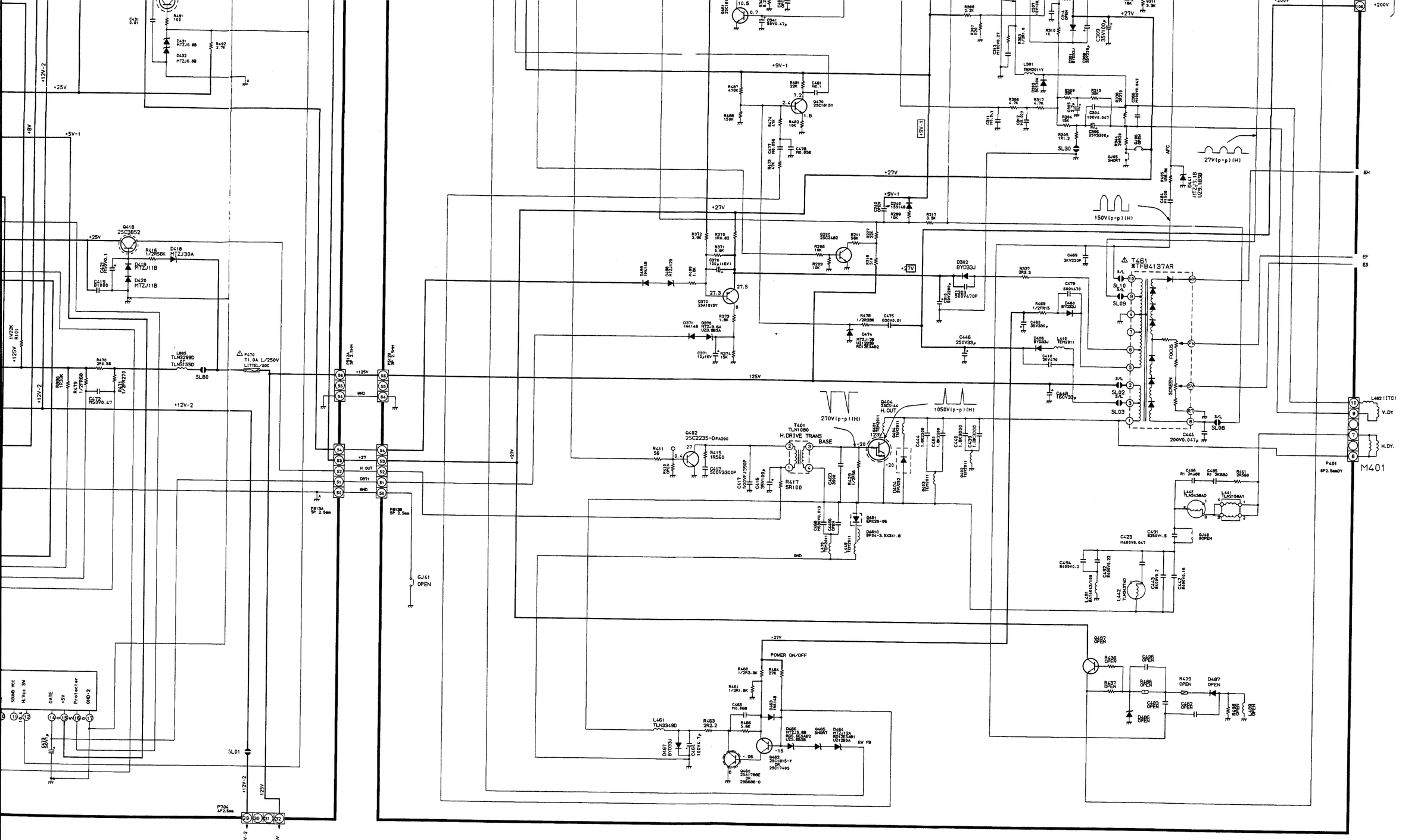
SL01

P704 4P2.5mm

+12V-2 NC NC +25V

TO CRT BAORD

H701



	2878D0	3378D0
C491	USE	OPEN
SJ40	OPEN	SHORT
C442	400V0.15	400V0.12
C443	400V0.20	400V0.12
C492	USE	OPEN
C494	USE	OPEN
L491	USE	OPEN
T461	TFB4137AR	TFBxxxx

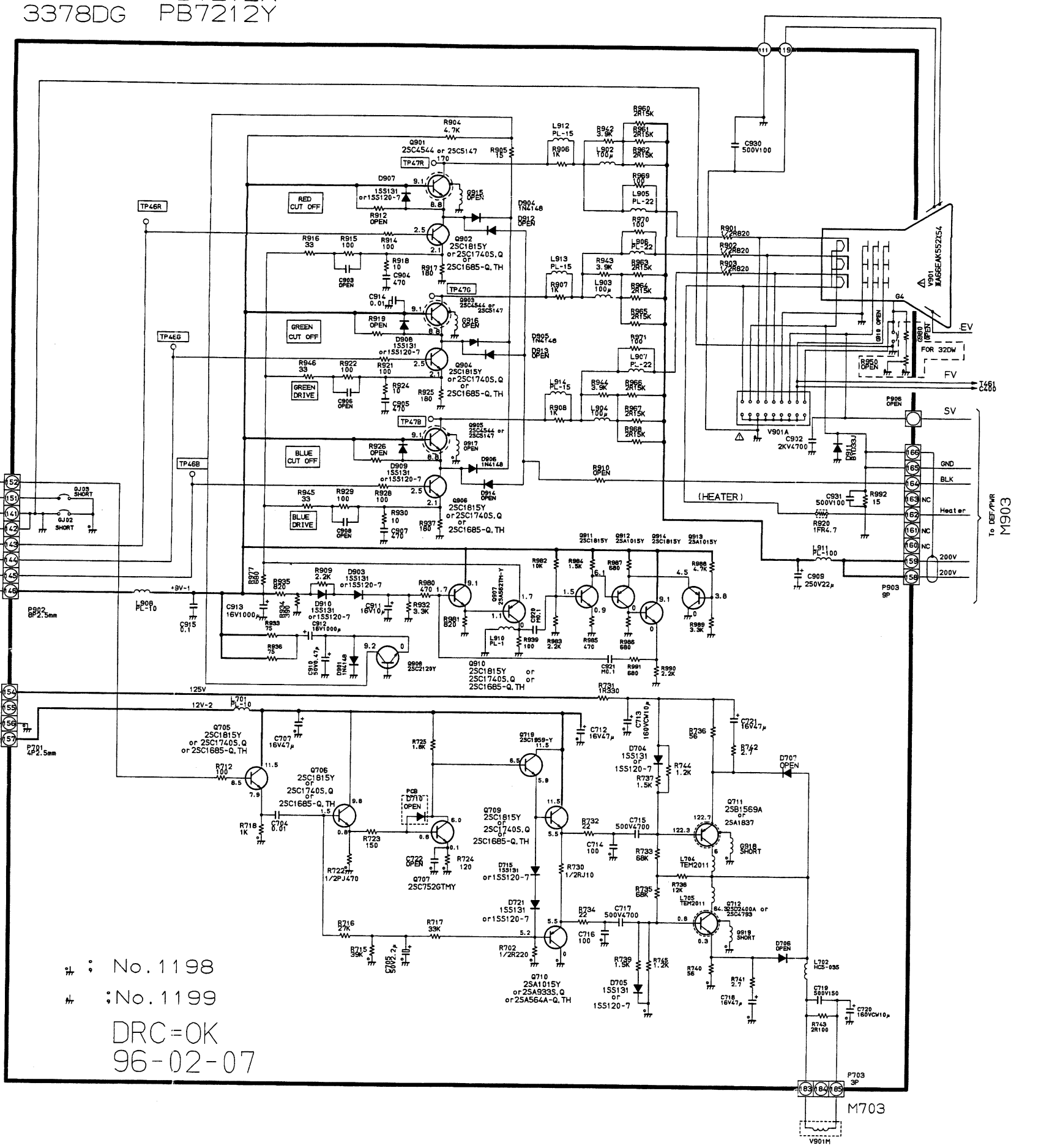
NOTE

The marking [OPEN] means that there are on component on the PCB though there are the marking of part No. on the PCB. Its means open circuited.

W661
SPK-1382
SN23351116

W662
SPK-1382
SN23351116

U905 CRT-D/DSM BOARD
2878DG PB7212X
3378DG PB7212Y



⚠ : No.1198

⚠ : No.1199

DRC=OK
96-02-07

	2878DG	3378DG
V901	A66EAK552X54	A80EFF002X43

NOTE
The marking [OPEN] means that there are on component on the PCB though there are the marking of part No. on the PCB. Its means open circuited.

GND NO. FOR AUDIO
1199
1198
1197

M601
R-SP
L-SP
W661 SPK-1382 SN23351116
W662 SPK-1382 SN23351116

CP03 SP 2.5MM
CP02 CP 2.5mm
P601 CP 4P2.5mm
P004 6P PUSH TER
P005 2P PUSH TER

GJ11 OPEN
GJ12 OPEN
GJ04 OPEN
GJ05 OPEN

R672 1K
L671 TEM2011
C671 0.01
C683 OPEN
L672 TEM2011
C684 OPEN
R671 1K
C672 0.01
C677 0.01
L643 TEM2011
C685 OPEN
R673 1K
C680 0.01
L645 TEM2011
C686 OPEN
R675 1K

R-SP
L-SP
SURROUND-SP
CENTER SP

S601 6C2P

DV01 UZ9.1BSBorMTZJ9.1B
DV02 UZ9.1BSBorMTZJ9.1B
DV03 UZ9.1BSBorMTZJ9.1B
DV04 UZ9.1BSBorMTZJ9.1B
DV05 UZ9.1BSBorMTZJ9.1B
DV06 UZ9.1BSBorMTZJ9.1B
DV07 UZ9.1BSBorMTZJ9.1B
DV12 UZ9.1BSBorMTZJ9.1B

QV01
TA1218N

RV29 27K
RV28 68K
RV33 12K
RV34 12K
RV08 1.6K
RV07 1.6K
DV11 1N4148
DV10 1N4148
CV07 0.01
RV06 100
CS08 2.2μ
R510 4.7K
CV06 10μ
RV05 100
R509 4.7K
C507 2.2μ
GND
CV05 0.01
RV04 100
R508 4.7K
C506 2.2μ
CV04 10μ
RV03 100
R507 4.7K
C505 2.2μ
V V1
CV03 10μ
R506 4.7K
C504 2.2μF
R V1
L V1
CV02 NP10μ
RV01 100
C502 NP2.2μ
R504 100
R503 100
C501 NP2.2μ
CV01 NP0.01
R
L
GND
DS01 OPEN
DS02 OPEN
DS03 OPEN
DS04 OPEN

I/O 3
I/O 2
I/O 1
C S2
R S2
S S2
L S2
C S1
R S1
S S1
L S1
V V1
R V1
L V1
V TV
R TV
L TV
DET SLCT
DET IN
R OUT2
L OUT2
O 4
GND
SCL
SDA
SYNC OUT
ADRS
V V2
L V2
Y IN
R V2
C IN
VCC
C OUT1
R OUT1
Y OUT1
L OUT1
V OUT1
R OUT TV
L OUT TV
O 5
V OUT2

E3
E2
E1
TV

+9V
LV09 PL-10
CV08 16V1000μ
RV96 100
RV09 100
RV10 100
RV35 10K
GV11 SHORT
RV18 12K
CV11 330P
RV79 68
GV12 SHORT
CV09 16V10μ
RV78 220
R511 100
SCL
SDA
SYNC-AV
SGV
SGA
CS09 50V1μ
GV13 SHORT
CV10 NP16V10μ
Y-COMB
GND-Y
GV14 SHORT
CV13 0.01
CV12 CERA0.1
GV15 SHORT
C COMB
GND
AV-C
R513 100 AV-R
LV03 TEM2026K
GJ13 OPEN
GJ14 OPEN
AV-Y
GND
R514 AV-L 100
AV-V
GND-V
GV17 SHORT
LV04 OPEN
GJ08 SHORT
GJ09 SHORT
R543 680
R544 680
RV19 100

R335 22K
Q508 2SC2878A
R536 22K
Q509 2SC2878A
CS22 16V10μ
R501 680
RS37 100K
AV-L
CS23 16V10μ
R502 680
RS38 100K
AV-R
GND
LV43 PL-10
RV23 1/2R100
QV09 2SC1815Y
CV23 16V100μ
CV24 0.01
RV25 100
CV25 16V470μ
RV27 75
V-AV
RV26 180
GND

QV08 2SC1815Y
RV96 390
RV16 470
LV08 PL-33
QV11 2SA1015Y
RV95 2K
RV92 10
RV94 10K
RV93 100K
CV20 33
QV07 2SC2878A
GV18 1/2R100
CV26 16V 33μ
CS17 16V10μ
R527 100K
R OUT
CS18 16V10μ
RS28 100K
L OUT
R529 22K
Q505 2SC2878A
R530 22K
Q506 2SC2878A
Q507 RN2004
RS31 10K
CS19 47μ
RS32 100K
RV65 1/2R100
RV66 100
CV65 16V100μ
QV12 2SC1815Y
RV68 75
V-OUT
RV67 1/2R82
CV66 16V470μ
GND

PV11B 20P B/B PLUG
LV01 OPEN
GJ01 SHORT
GJ02 SHORT

1 S S2 S S2
2 GND GND
3 C TRAP
4 C S2 C S2
5 GND
6 L S2
7 R S2
8 GND
9 GND
10 21 PIN Ys
11 21 PIN R
12 21 PIN G
13 21 PIN B
14 NC
15 AV-C
16 SDA
17 SCL
18 GND AV
19 AV-Y
20 GND
21 GND
22 AV-V
23 C-COMB
24 GND-Y
25 Y-COMB
26 GND
27 TV-V
28 TV-R
29 TV-L
30
31 +9V-1
32 AV-L
33 AV-R
34 SYNC-AV1
35
36 A-MUTE
37 SGA
38
39 SGV
40 E3 DET

TO SIGNAL

DRC=OK
96-02-12

: No.1197

U905 CR
2878DG
3378DG

M902
To SIGNAL
VM 52
GND 51
GND 41
GND 42
R 43
G 44
B 45
+9V-1 46
GJ03 SHORT
GJ02 SHORT
P902 6P2.5mm
L908 PL-10

M701
To DEF/PWR
125V 54
55
56
12V-2 57
P701 4P2.5mm

TP4

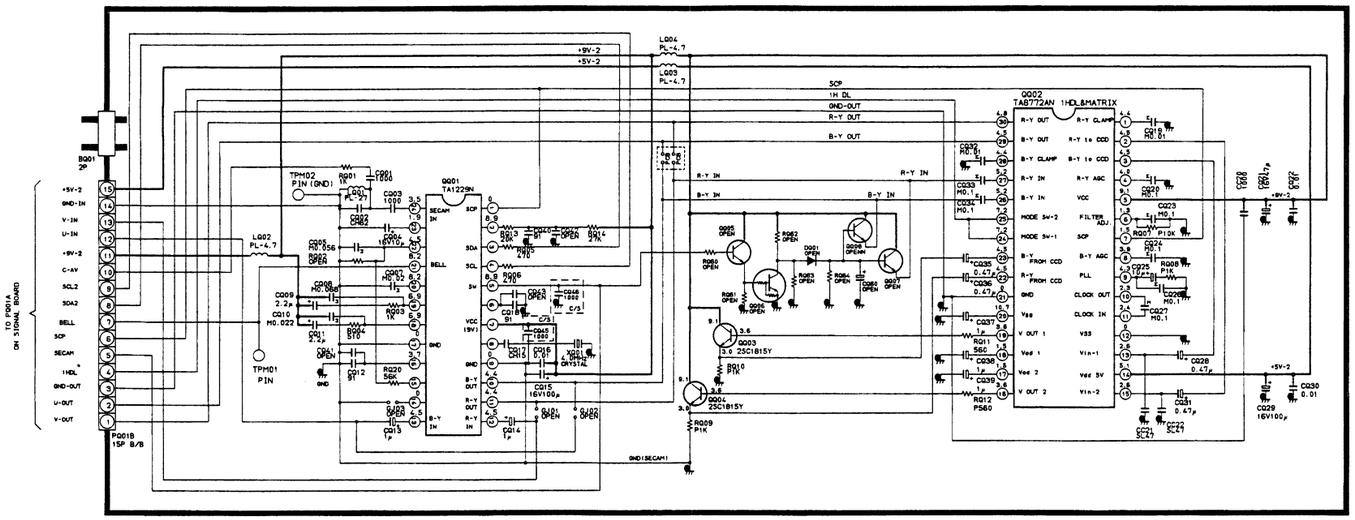
: No.
: No.
DRC
96-

AUDIO OUT (FIX)

S-VIDEO

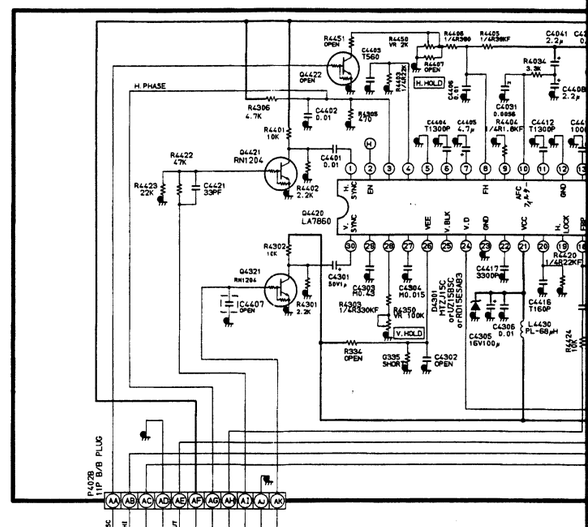
SCHEMATIC DIAGRAM MODEL: 2878DG (4/4)

U906 SECAM+1HDL BOARD
28/3378DG PB7213X-1

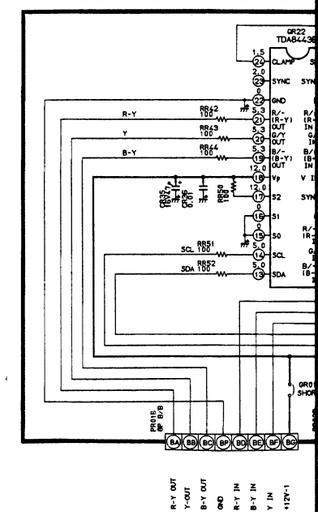


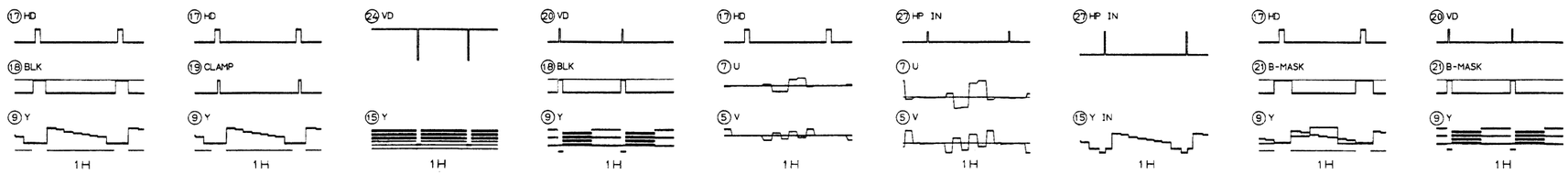
2878DG	V/D SECAM
Q005	DELETE 2SC1815Y
Q006	DELETE RN1203
Q007	DELETE 2SC1815Y
Q008	DELETE 2SC1815Y
D001	DELETE 1S1131
C060	DELETE 2.2μ
R060	DELETE 100
R061	DELETE 10K
R062	DELETE 10K
R063	DELETE 10K
R064	DELETE 100K

U902B PAL 100HZ BOARD
28/3378DG PB7213X-4



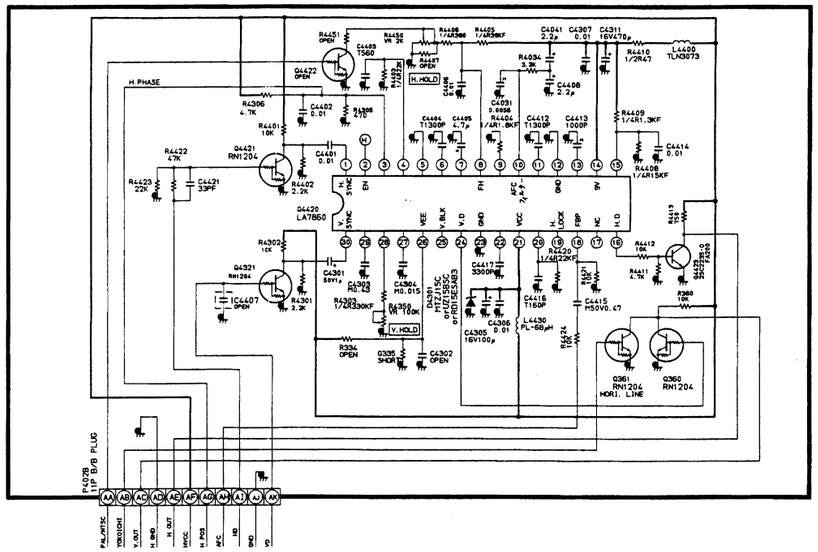
U902C YUV SW BO
28/3378DG PB7213





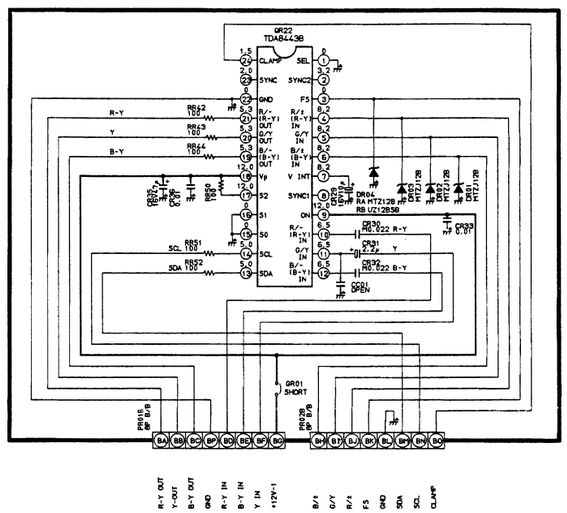
U908 UP CONVERTER BOARD
28/3378DG PB7366X
2876DD/DF PB7366X

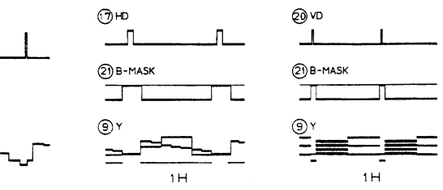
U902B PAL 100HZ BOARD
28/3378DG PB7213X-4



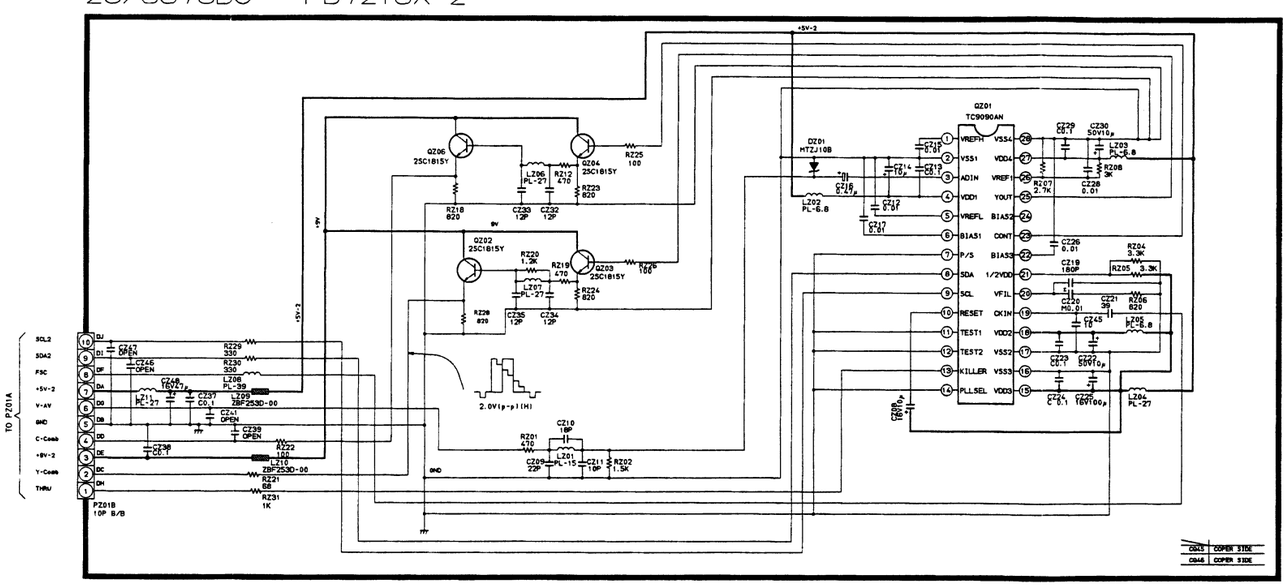
	2878DG	W/O SECAM
Q035	DELETE	2SC1815Y
Q036	DELETE	RN1203
Q037	DELETE	2SC1815Y
Q038	DELETE	2SC1815Y
D091	DELETE	1SS131
CQ60	DELETE	2.2μ
RQ60	DELETE	100
RQ61	DELETE	10K
RQ62	DELETE	10K
RQ63	DELETE	10K
RQ64	DELETE	100K

U902C YUV SW BOARD
28/3378DG PB7213X-3

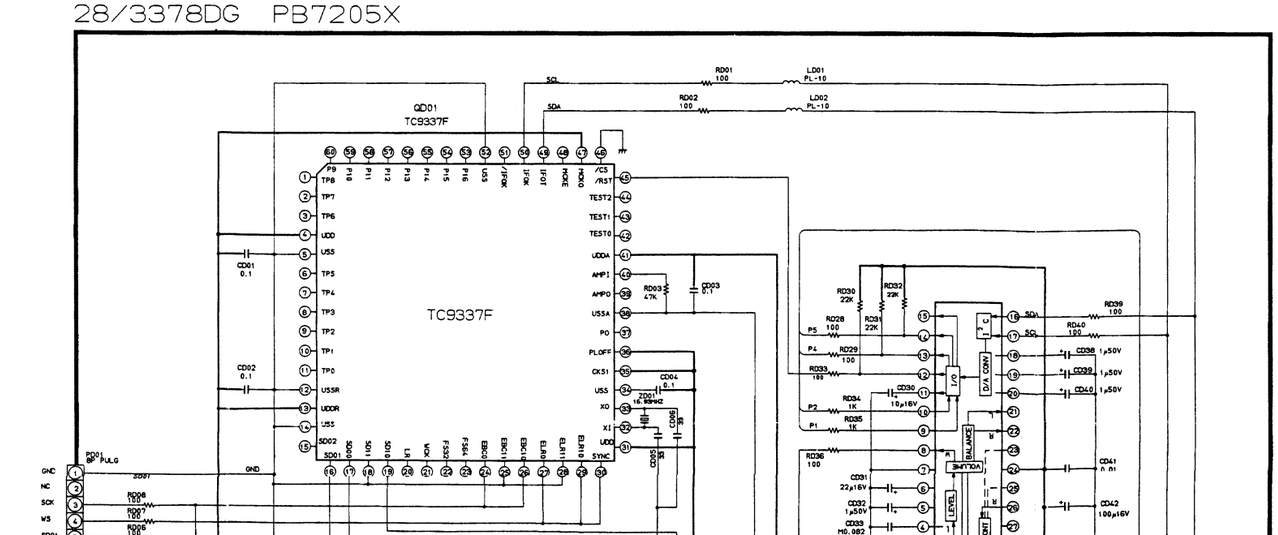


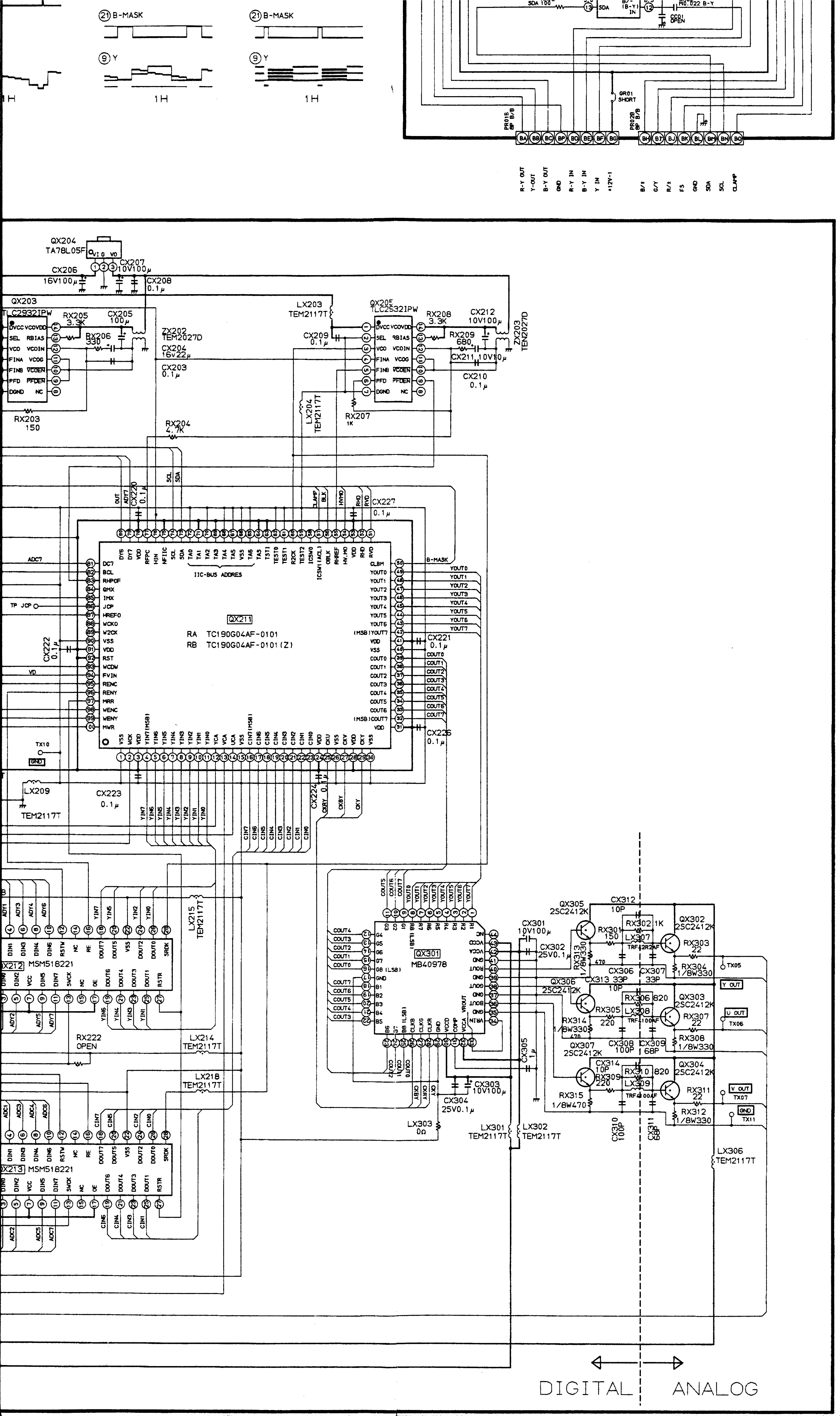


U906 COMB BOARD
28/3378DG PB7213X-2

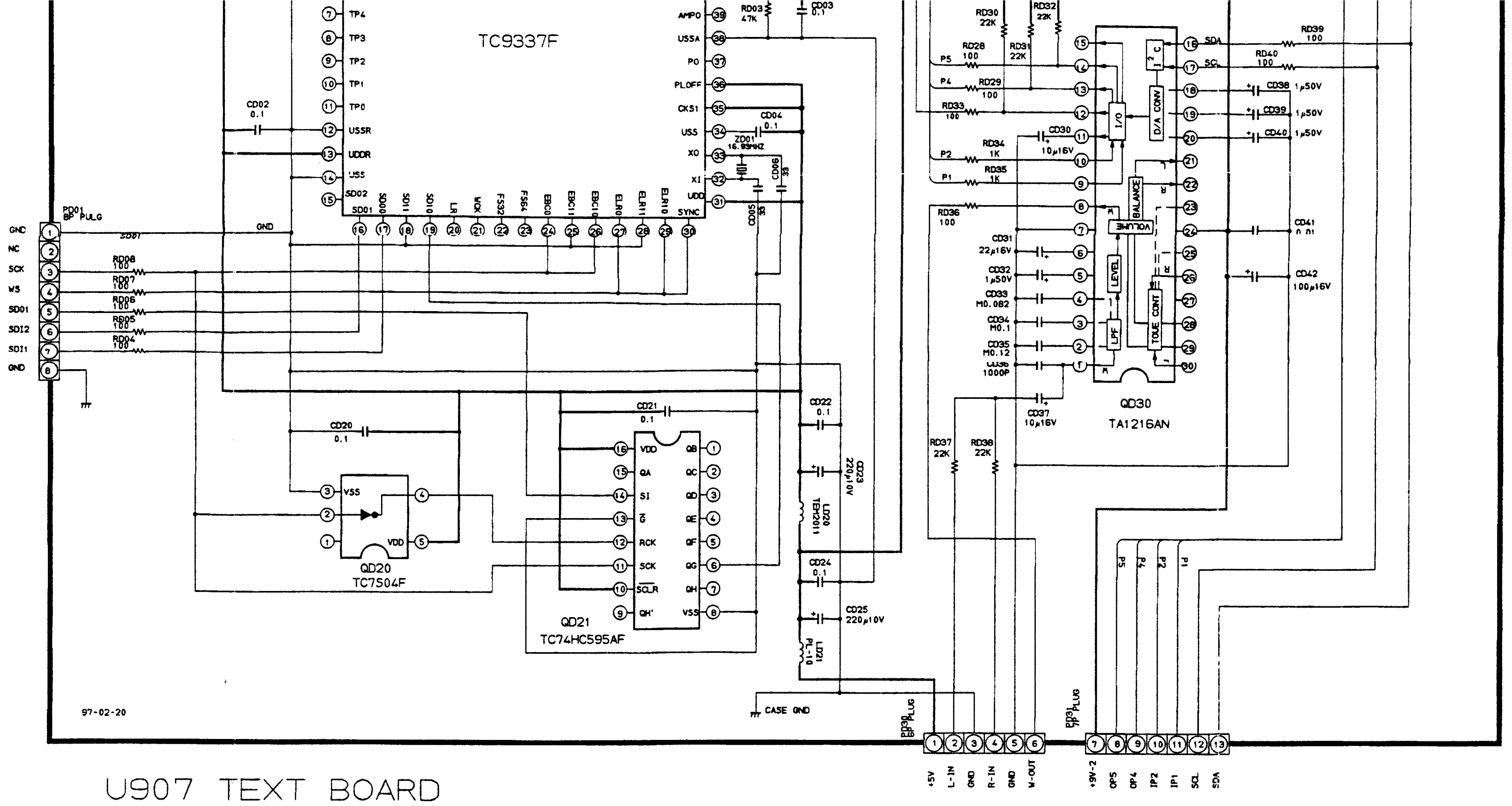


U101 DOLBY PRO BOARD
28/3378DG PB7205X

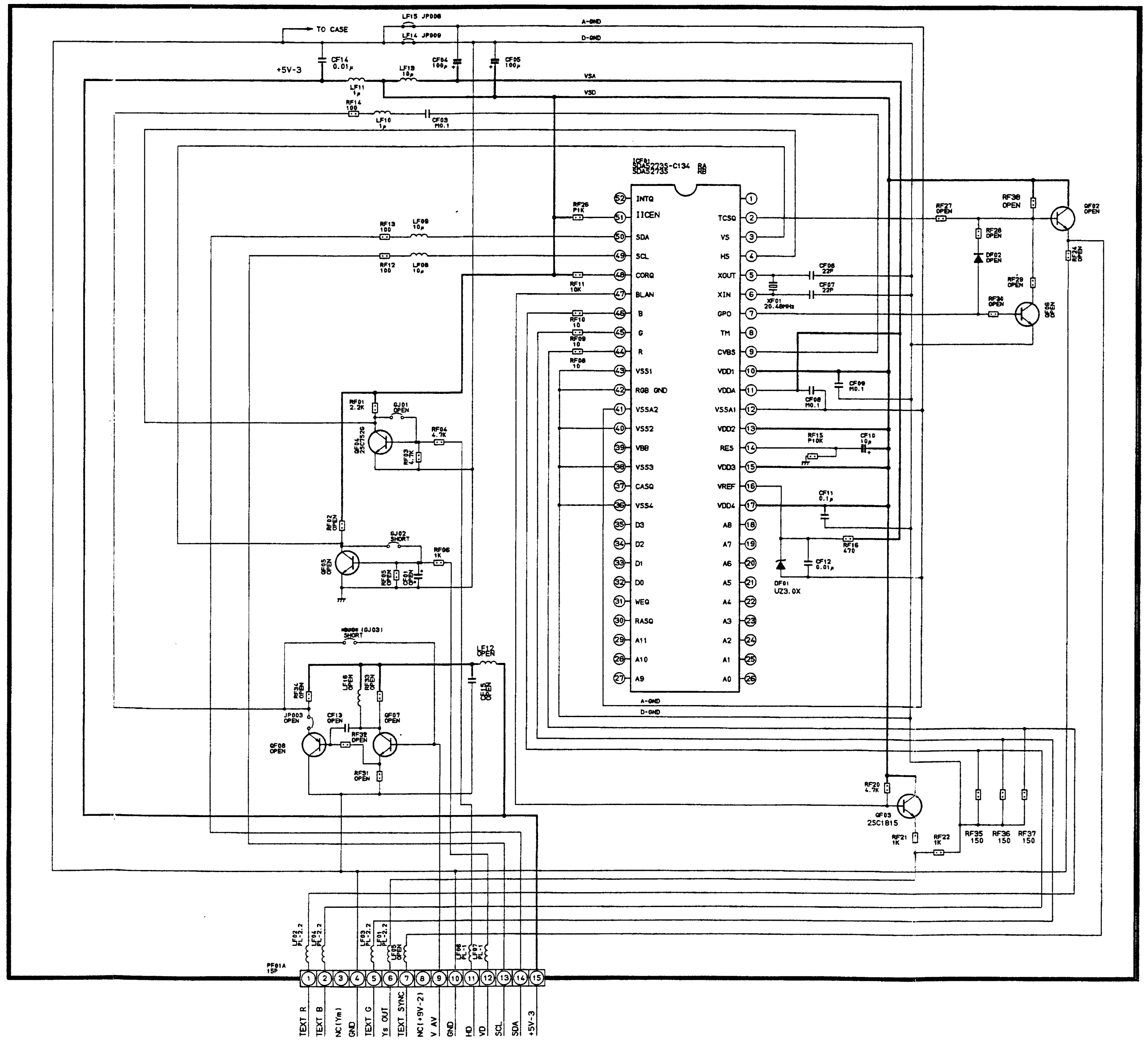




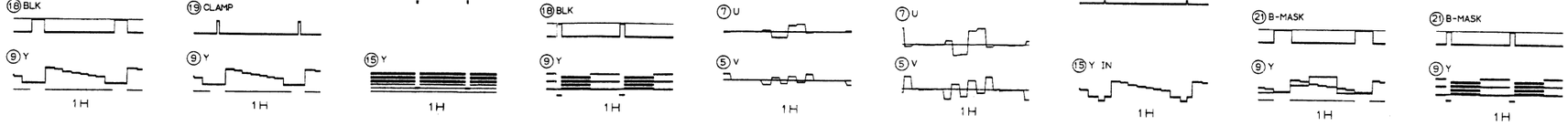
B-MASK
Y
1H
QX204
TA78L05F
QX203
TLC2932IPW
QX205
TLC2532IPW
ZX202
TEM2027D
ZX203
TEN2027D
LX203
TEM2117T
LX204
TEM2117T
QX211
RA TC190G04AF-0101
RB TC190G04AF-0101(Z)
IIC-BUS ADDRES
QX212 MSM518221
QX213 MSM518221
QX301
MB40978
QX305 2SC2412K
QX302 2SC2412K
QX306 2SC2412K
QX303 2SC2412K
QX307 2SC2412K
QX304 2SC2412K
Y OUT
U OUT
V OUT
GND
DIGITAL
ANALOG



U907 TEXT BOARD
2878DG PB6513X



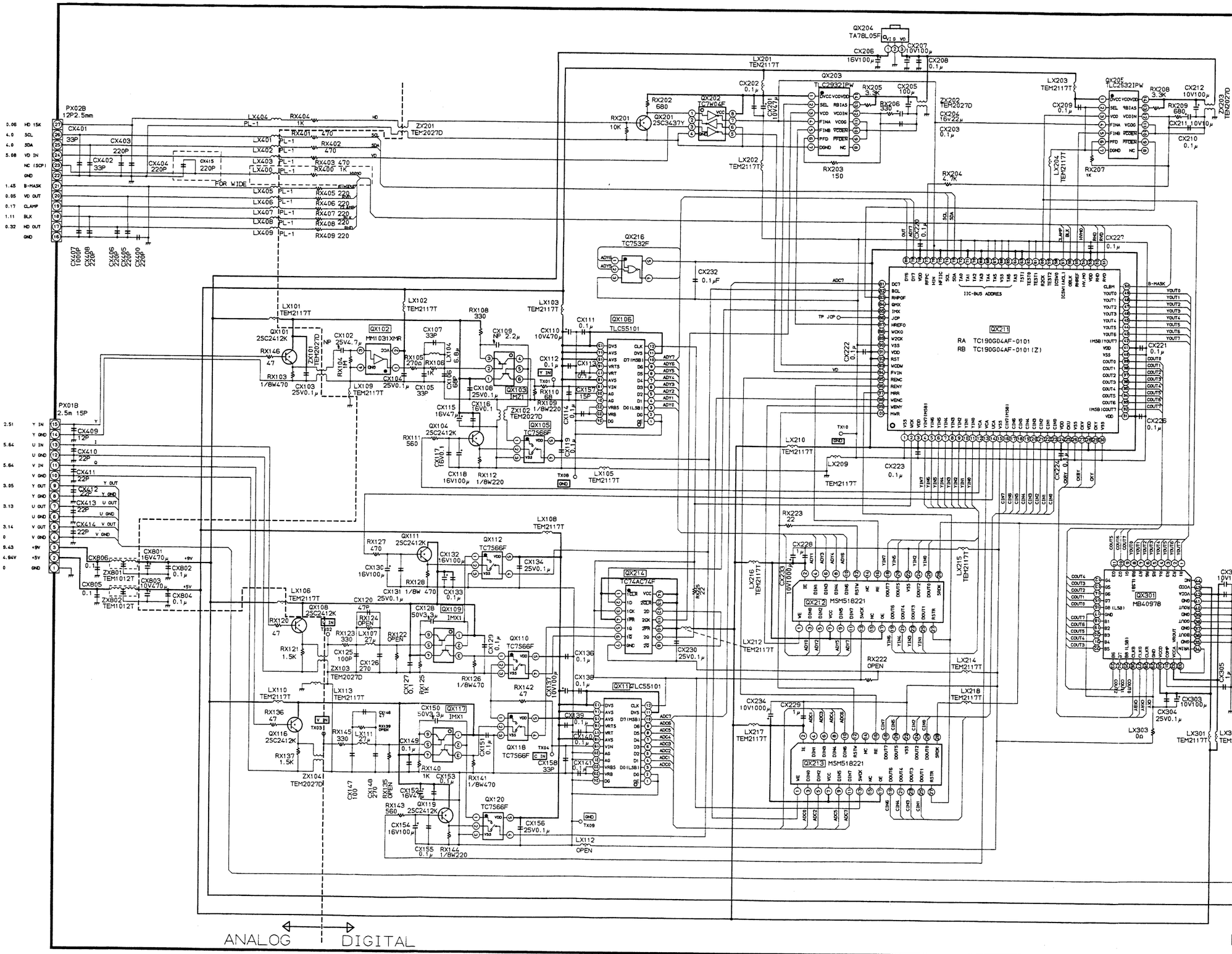
NOTE
The marking [OPEN] means that there are on component on the PCB though there are the marking of part No. on the PCB. Its means open circuited.



U908 UP CONVERTER BOARD

28/3378DG PB7366X

2876DD/DF PB7366X



SPECIFICATIONS

Input Power Rating: 165 Watts (Normal), , AC 220 ~ 240 Volts, 50 Hz

Aerial Input Impedance: 75 ohm unbalanced type for VHF, UHF and CATV

Receiving Channels:

System	Channel	VHF	UHF	CATV	
PAL B/G	CCIR	2 ~ 12	21 ~ 69	S1 ~ S41	X ~ Z + 2,
SECAM B/G	CCIR	2 ~ 12	21 ~ 69	S1 ~ S41	X ~ Z +2,
PAL D/K	CHINA	1 ~ 12	13 ~ 57	Z-1 ~ Z-35	
SECAM D/K	OIRT	1 ~ 12	21 ~ 69	X-1 ~ X-19	
PAL I	UK	–	21 ~ 69	–	
SECAM L	FRANCE /CCIR	FB ~ F6	21 ~ 69	S1 ~ S41	X ~ Z +2,

PAL, SECAM 50 Hz/60 Hz (For Video Disk play back)
4.43 NTSC (For VCR playback), 3.58 NTSC (For VCR playback)

Intermediate Frequencies:
Picture I-F carrier frequency ..... 38.9 MHz (L VL)
Sound I-F carrier frequency
L System ..... 32.4 MHz (L VH, U)/40.97 MHz (L VL)
B/G System ..... 33.4 MHz
D/K System ..... 32.4 MHz

Picture Tube: 28 inches, A66EAK552X54, 660 mm (measured on diagonal of viewable picture area)
110° deflection

Sound Output: 10 W + 10W (at 10% Distortion, Main)
13W (at 10% Distortion, Woofer)

Speakers: 60 mm x 120 mm oval, 2 pcs (Main)
100 mm, round, 1 pc (Woofer)

Aux. Terminals: 21 pin socket (FULL), 21 pin socket (S-VIDEO/AV), MONITOR OUTPUT, STEREO HEADPHONE JACK (3.5mm).

Cabinet: Table type

Dimensions:
Height ..... 569 mm
Width ..... 760 mm
Depth ..... 480 mm

Mass: 36.3 kg

Specifications are subject to change without notice.